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ABSTRACT

The majority of evaluation reports abstracted in this document were completed by the Research and Evaluation Branch of the Department of Research, Evaluation, and Information Systems of the Dallas, Texas, Independent School District during the 1976-77 school year. The abstracts were written to provide useful information to decision-makers and are divided into five volumes containing: (1) system-wide measurement results; (2) system-wide context evaluations; (3) testing applications, ad hoc research, context and input evaluations; (4) program evaluations; and (5) special project evaluations and applied research. The abstracts include a statement of evaluation purpose, sample, design, and results, as well as the names of evaluators and additional sources of information. Test items and limitations of the evaluation are also included in some abstracts. Extensive data tables are presented in the volumes. (JAC)

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ABSTRACTS OF RESEARCH AND EVALUATION REPORTS 1976-77

VOLUME I — SYSTEM-WIDE MEASUREMENT RESULTS

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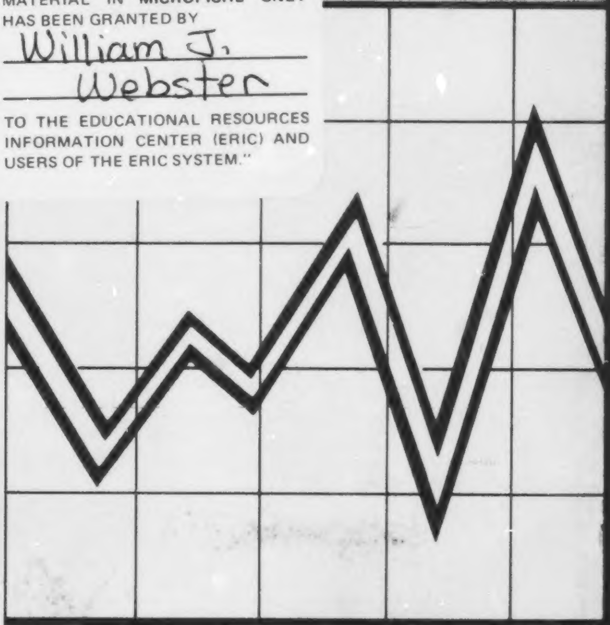

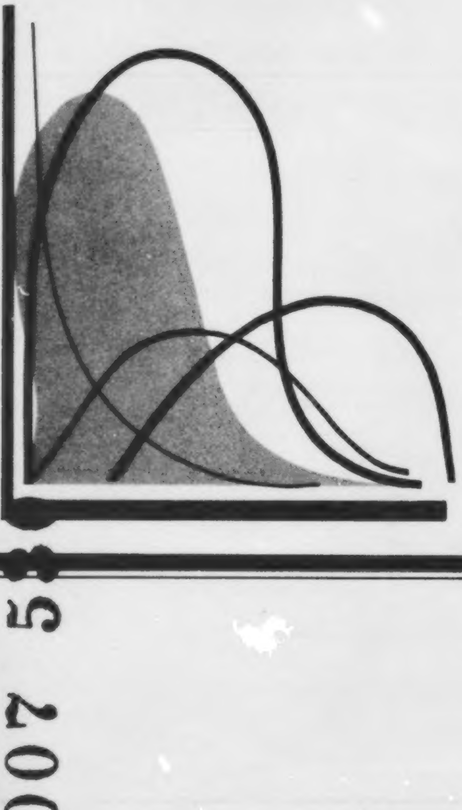

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DEPARTMENT OF RESEARCH, EVALUATION AND INFORMATION SYSTEMS

dallas independent school district

DR. NOLAN ESTES, *General Superintendent*

Dallas Independent School District
Dr. Nolan Estes, General Superintendent

Development Division
Mr. Rogers L. Barton
Associate Superintendent

Department of Research, Evaluation,
and Information Systems
Dr. William J. Webster
Deputy Associate Superintendent

ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77
VOLUME I
SYSTEM-WIDE MEASUREMENT RESULTS

The majority of reports abstracted in this document were completed by the District's Research and Evaluation Branch of the Department of Research, Evaluation, and Information Systems during the 1976-77 school year and were presented through the Educational Program and Evaluation Committee to the Board of Education. Several studies were completed in previous years; but, because they affect significant decisions, they too are abstracted in this document.

Approved report of the Department of Research,
Evaluation, and Information Systems

William J. Webster
William J. Webster
Deputy Associate Superintendent
Research, Evaluation, and Information Systems

November, 1977

Dallas, Texas

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OVERVIEW OF THE RESEARCH AND EVALUATION BRANCH OF THE DEPARTMENT OF RESEARCH, EVALUATION, AND INFORMATION SYSTEMS

The major purposes of the Research and Evaluation Branch (R&E) of the Department of Research, Evaluation, and Information Systems are to provide useful information to decision-makers and to serve as an accountability agent. The process requires cooperative action by decision-makers (i.e., curriculum developers, teachers, and administrators) and evaluators. The decision-maker's role is to weigh the evidence provided him by the evaluator and render judgment about what course of action to take in the situation confronting him. Because the decision-maker generally does not have the time or technical skill necessary to gather and analyze the objective data necessary to make informed decisions, the evaluator provides him with information concerning the reason action must be taken and alternative strategies that are open. Thus, it is essential that the evaluator know enough about the decision-making process and the information used by the educator in reaching a given decision, to identify the scientifically sound and useful information needed to reach an objective decision. Through the aforementioned process, the educator becomes accountable for his decisions.

In implementing data collection and analysis activities, the evaluator shares an obligation with the educator; he must provide information which is valid and objective. Objectivity requires that the evaluator must be free to identify and investigate the viewpoints of a given decision-maker's clients, constituents, and other interested parties. The evaluator has four broad obligations in the evaluation process: (a) to focus on evaluative information to be provided; (b) to collect, organize, and analyze this information; (c) to administer evaluative activities; and (d) to provide relevant evaluative feedback to decision-makers at all levels.

In order to provide the services alluded to above, fourteen general classes of activities are implemented. These activities include:

a. Management - the obtaining, disbursing, and quality control of material and personnel resources necessary to meet the information needs of the District.

b. Testing - the operation of the basic data acquisition system in such a manner as to insure reliable valid, and objective instrumentation and reporting.

c. Instrument development - the development and validation of necessary instrumentation.

d. Context evaluation - the provision of baseline information that delineates the environment of interest, describes desired and actual outcomes, identifies unmet needs and unused opportunities, and diagnoses problems that prevent needs from being met.

e. Input evaluation - the provision of information for determining optimum methods of resource utilization for accomplishing set goals.

f. Process evaluation - the provision of information for determining defects in procedural design or implementation during program implementation stages and for aiding in the interpretation of product evaluation data.

g. Product evaluation - the provision of information for determining the relative success of educational programs. Product evaluation may be interim or summative and generally addresses the extent to which programs meet their objectives, the relative effects of alternative program, and/or program cost-effectiveness.

h. Applied research - the provision of information pertaining to interactions between student characteristics, teacher characteristics, and/or instructional strategies.

i. Basic research - the provision of information pertaining to fundamental relationships affecting student learning.

j. Data processing - the operation of the basic data retrieval and analysis system.

k. Planning services - the provision of technical assistance to District and project management in planning and managing projects and programs.

l. Ad hoc information - the provision of requested information on an ad hoc basis to decision-makers.

m. Research consultation - the provision of design and analysis help to District personnel in implementing their own research and evaluation projects.

n. Proposal development - the development of proposals, or the evaluation sections of proposals, for outside funds. In all cases outside funds should be a means to an end, not an end in themselves.

To provide these evaluation activities, Research and Evaluation is organized into four branches. The first, System-wide Testing, is responsible for the design and implementation of DISD system-wide norm-referenced and criterion-referenced testing programs. The second, System-wide Evaluation, performs the longitudinal and cross-sectional research and evaluation necessary to supply major DISD decision-makers with information about the overall functioning of DISD programs. It provides context information of both a status and long range project nature. The third, Developmental Project Evaluation, evaluates specific developmental projects to ascertain the effects of those projects on developing specific student abilities in areas that generally need more mediation than that which is provided by DISD general academic program. In addition to the process and product evaluation duties which form the bulk of its activities, Developmental Project Evaluation also has an Input Evaluation unit. The fourth, Special Project Evaluation, evaluates specific federally funded projects and programs. In addition to project evaluation duties, it is involved in proposal development. The fifth, Applied Research, coordinates and conducts the District's basic and applied research studies. It also satisfied the *ad hoc* information needs of the District and provides technical assistance to DISD personnel in conducting their own research and evaluation projects. The Data Processing Branch of the Department of Research, Evaluation, and Information Systems provides the equipment necessary for data retrieval and analysis.

GOALS AND BUDGET OF THE RESEARCH AND EVALUATION BRANCH OF THE DEPARTMENT OF RESEARCH, EVALUATION, AND INFORMATION SYSTEMS 1976-77

Goal		General Funds	Other Funds
1.0	Administer the Department of Research, Evaluation, and Information Systems.	60,000	0
1.1	Establish objectives.		
1.2	Develop strategies for accomplishing ojbectives.		
1.3	Secure material and personnel resources necessary to accomplish objectives.		
1.4	Review and revise strategies in view of budget constraints.		
1.5	Establish priorities.		
1.6	Conceptualize new uses and methodologies.		
1.7	Produce services and products specified in objectives.		
1.8	Quality control services and products produced.		
1.9	Recruit, develop, and evaluate staff.		
1.10	Provide liaison with other departments within the District.		
1.11	Provide liaison with the General Superintendent and Executive Team.		
1.12	Provide liaison with the Board of Education.		
1.13	Provide liaison with external agencies engaged in planning, research, and evaluation activities.		
2.0	Provide administrative support to the operations of the Department of Research, Evaluation, and Information Systems.	154,335	14,602
2.1	Operate the Stephen J. Hay building.		
2.2	Provide departmental clerical support.		
2.3	Provide departmental equipment.		
2.4	Print reports.		

3.0	Implement a research and evaluation training program that is consistent with the goals of Affirmative Action. 3.1 Design training program. 3.2 Solicit the support of area universities. 3.3 Coordinate the program with Western Michigan University. 3.4 Recruit students. 3.5 Implement the program 3.6 A report on this program is included on pages 911 to 915	21,712	0
4.0	Operate the District's System-wide Testing program through the planning, securing needed supplies for, administering, monitoring, scoring, and reporting the results of all group testing programs, and the coordination of all non-departmental or non-District originated testing programs. 4.1 Plan the District's 1976-77 group testing program 77-003 . 4.2 Implement and monitor the plan. Administer: 4.2.1 System-wide group tests: MRT (K-1), ITBS (2,4,6, 8), ITED (9.12), September. 4.2.2 System-wide basic objectives assessment tests: reading and mathematics (8.12), February-March. 4.2.3. Title I group tests: ITBS April, May (K-6), September (3,5). 4.2.4 Criterion-referenced diagnostic tests for use in reading and mathematics at teacher discretion, grades K-8. 4.3 Coordinate all non-departmental and non-District originated testing. 4.4 Abstracts of testing studies are reported on pages 853 to 878	164,704	61,791

5.0	Implement the second year of four year program to develop a minimal competency testing program that will include by 1981 a high school graduation competency test in reading, mathematics, citizenship, and science.	61,144	0
5.1	Obtain DISD science, citizenship, reading, and mathematics objectives.		
5.2	Meet with District subject matter consultants to determine benchmarks for functional literacy at grades 3, 6, 8, and 12.		
5.3	Develop items.		
5.4	Conduct item tryouts.		
5.5	Revise items.		
5.6	Develop tests.		
5.7	Print tests.		
5.8	1976-77 thrusts will be mathematics 3, 6 and science 3, 6, 8, 12.		
5.9	Progress in test development and validation is reported on pages 879 to 910		
6.0	Monitor and assess the District's basic instructional program at the school and District levels through systematic context evaluation data provided through the Institutional Research Progam.	251,727	76,175
6.1	Establish priorities for Institutional Research.		
6.2	Maintain longitudinal data bases.		
6.3	Design context studies.		
6.4	Implement context studies.		
6.5	Analyze data.		
6.6	Report results of context studies.		
6.7	Context studies deal with such topics as testing profiles, functional literacy studies, desegregation studies, longitudinal and quasi-longitudinal achievement studies, socioeconomic and community profile studies, dropout studies, graduate follow-up studies, input process studies, mobility studies, attendance studies, achievement trend and		

	interpretative studies, teacher profiles, student-teacher characteristic studies, staffing indices, test administration studies, administrative staffing studies, test quality studies, etc. In short, most system-wide status studies are conducted through the Institutional Research Program.		
6.8	Abstracts of context evaluation studies are reported on pages 16 to 772; 792 to 852		
7.0	Monitor and assess the District's desegregation efforts.	25,000	0
7.1	Obtain the Court Order.		
7.2	Determine data required by the Court.		
7.3	Design data collection procedures		
7.4	Collect data.		
7.5	Analyze data.		
7.6	Prepare report for December 15 and April 15.		
7.7	Report to the Court		
7.8	Abstracts of the Court report are reported on pages 773 to 791		
8.0	Conduct context, process, and product evaluation studies of the District's federally funded programs to assist District staff in planning needed instructional improvements.	61,000	723,928
8.1	Review and input into proposals for federal funds.		
8.2	Secure priorities for evaluation.		
8.3	Secure necessary material and human resources.		
8.4	Design studies.		
8.5	Implement studies.		
8.6	Analyze data.		
8.7	Aid in preparation of 1978-79 proposals for federal funds.		
8.8	Report results.		
8.9	Federal program evaluation includes the evaluation of Title I, ESAA, Title IV C, and Title VII programs.		
8.10	Abstracts of federally funded program evaluation studies are reported on pages 1233 to 1469; 1645 to 1757		

9.0	Conduct context, process, and product evaluation studies of the District's developmental and alternative instructional programs to assist District staff in planning needed instructional improvements.	340,857	134,000
9.1	Continue evaluation efforts at Skyline, Spruce, Adamson, and Pinkston centers.		
9.2	Continue evaluation efforts at Lincoln.		
9.3	Continue evaluation efforts at the Transportation, Business and Management, Creative Arts, and Health Professions magnets.		
9.4	Continue the evaluation of the Vanguards, Academies, and K-3 centers.		
9.5	Continue the evaluation of the K-12 Career Education Program.		
9.6	Establish priorities for additional evaluation.		
9.7	Design studies.		
9.8	Implement studies.		
9.9	Analyze data.		
9.10	Report results.		
9.11	Abstracts of developmental program evaluation studies are reported on pages 1175 to 1232; 1470 to 1644		
10.0	Conduct context, input, process, and product evaluation studies of the District's special education programs to assist District staff in planning needed instructional improvements.	11,000	111,787
10.1	Establish priorities for evaluation.		
10.2	Negotiate with management for funds necessary to meet priorities.		
10.3	Design studies.		
10.4	Implement studies.		
10.5	Analyze data.		
10.6	Report results.		
10.7	Abstracts of special education evaluation studies are reported on pages 1758 to 1787		

11.0 Provide systematic input evaluation and planning support to aid decision-makers at both the campus and District level in choosing and implementing educational programs to meet the requirements of the State Accreditation Model. 11.1 Complete accreditation needs assessment. 11.2 Develop, pilot test, and validate criterion-referenced instruments to assist in the accreditation process. 11.3 Provide input evaluation data for high priority goal areas as identified in the accreditation self-assessment. 11.4 Prepare accreditation reports for the Texas Education Agency. 11.5 Continue implementation and refinement of the Campus Level Planning Model. 11.6 Provide evaluation services to the Early Childhood Centers. 11.7 Develop and refine training packages through the Performance Level Administrative Packages and the Guidance Assessment and Accountability Systems. 11.8 Input evaluation studies are abstracted on pages 973 to 1174	143,457	30,000
12.0 Conduct and coordinate applied research studies which will assist District staff in improving the instructional delivery process. 12.1 Implement the longitudinal plan for basic and applied research. 12.2 Issue RFP's to area universities inviting them to help in the implementation of the plan through carefully monitored faculty and graduate student research. 12.3 Coordinate, through the Development Council, the selection of studies that optimize potential payoff to the District.	65,144	0

12.4 Provide technical assistance to practitioners implementing research and/or evaluation studies in the District.		
12.5 Implement selected studies in accordance with the applied research plan.		
11.5.1 Establish priorities for research.		
11.5.2 Design studies.		
11.5.3 Implement studies.		
11.5.4 Analyze data.		
11.5.5 Report results.		
12.6 Prepare annual review of the literature on the state of the art in teaching.		
12.7 Implement selected studies in the area of instructional technology.		
12.8 Abstracts of applied research studies are reported on pages 1788 to 1892		
13.0 Respond to the ad hoc needs of District decision-makers with objective, accurate data.	10,484	24,605
13.1 Obtain requests for ad hoc information.		
13.2 Collect or obtain data.		
13.3 Generate reports.		
13.4 Abstracts of ad hoc research, studies are reported on pages 916 to 972		
14.0 Provide long-range planning services to District decision-makers.	2,189	15,000
14.1 Establish priorities for long-range planning		
14.2 Secure material and personnel resources necessary to accomplish priorities.		
14.3 Design projection studies.		
14.4 Implement projection studies.		
14.5 Analyze data.		
14.6 Report results.		
14.7 Projection studies include enrollment projections, faculty		

	projections, financial projections facilities projections, and various enrollment and financial trend studies.		
14.8	Projection systems and studies are reported on pages 1893 to 1934.		
TOTAL RESEARCH AND EVALUATION BRANCH BUDGET		1,372,753	1,191,888

SENIOR STAFF OF THE RESEARCH AND EVALUATION BRANCH OF THE DEPARTMENT OF RESEARCH, EVALUATION, AND INFORMATION SYSTEMS

1976-77

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Abstract

Performance Profiles
Northwest Subdistrict

Evaluators: Susan J. Whitmore and James A. Meier

Purpose: The District's student population is tested every two years through the system-wide testing program to provide information for educational planning, curriculum development, and allocation of funds. A series of five reports, called the Performance Profiles, presents testing results in terms of percentiles and means as well as supportive data on a number of related variables. These reports serve as one expression of the District's commitment to a policy of accountability to parents and the public through a systematic reporting of educational processes and products in the District.

Sample: The Performance Profiles are a series of five reports. These five reports depict achievement score distributions of students in Grades 2, 4, 6, 8, 9, and 12 by the High School Attendance Areas feeding each of the five Subdistricts.

The tests from which the Performance Profiles were generated were administered in September, 1976, and measured student achievement in:

Grade 2 -- vocabulary, reading, word analysis, language, and mathematics, as measured by the Iowa Tests of Basic Skills (ITBS).

Grades 4, 6, 8 -- vocabulary, reading, language, methods of study, and mathematics, as measured by the Iowa Tests of Basic Skills (ITBS).

Grades 9, 12 -- interpretation of reading materials, language usage, quantative thinking, understanding of basic social concepts, the natural sciences, and the use of sources of information, as measured by the Iowa Tests of Educational Development (ITED).

Design: Achievement results are reported in terms of mean grade-equivalence scores, standard deviations in grade-equivalence units, and decile distributions. A decile is any one of nine percentile points that divide the distribution of test scores of the norm group into ten equal parts. Each part contains ten percent of the total number of test scores. Thus, District students scoring below the first decile (in the lowest interval) scored equivalently with those students scoring in the lowest ten percent of the large-city norm group, while those scoring above the ninth decile (in the

highest interval) scored equivalently with those students scoring in the highest ten percent of the large-city norm group. By definition, ten percent of the norm group scored in each decile interval. Hence, comparing the performance of a class of local students with that of students in the norm group can be done straightforwardly.

The decile distributions have been cumulated in several ways. Not only are high school attendance area scores reported for each grade, but score distributions for each sex and ethnic group are presented as well. In addition, data describing important environmental variables are presented. It is essential that test scores be interpreted in light of these variables, since they provide valuable background related to achievement. All demographic data were drawn from the 1976-77 school year. Total District data were not reported since the District has become so diverse as to render them of limited value.

Limitations: It is important to note some major limitations in the interpretation of the Performance Profiles.

1. These data are descriptive in nature, not inferential. They merely describe student achievement levels and related environmental variables. Inferences concerning causal factors should not be considered valid without supportive experimental data.

2. Measured achievement levels are dependent upon a number of factors other than actual student achievement. For example, test administration procedures and the degree of appropriateness of test norms contribute significantly to test results.

3. Measured achievement levels are closely related to a number of sociological background factors.

4. The data presented as summaries for high school attendance areas as well as those for individual schools on the computer-generated pages are strictly cross-sectional in time; that is, they reflect testing in September, 1976, only. However, on the subdistrict summary pages, reference is made to gain scores computed by comparison with results from testing in September, 1974. A full longitudinal analysis made across successive years and grades appears in other current studies. Gain scores for individual schools would be difficult to interpret due to the reorganization of student populations under the recent desegregation order, and therefore have not been included this year.

Supportive information reported includes:

1. Average Daily Membership: The average number of students actively enrolled on any given day during the first six weeks of the 1976-77 school year. This average was computed from data provided by the Pupil Accounting Office. The total enrollment was adjusted on the assumption that students who withdrew or reentered were enrolled exactly one-half of the time.

2. % Average Daily Attendance: The ratio of average daily attendance to average daily enrollment, multiplied by 100. This was computed from data provided by the Pupil Accounting Office for the first six weeks of the 1976-77 school year.

3. % Non-White: The percentage of Black, Mexican-American, American Indian, and Oriental students among the total enrollment. This percentage was computed from the HEW Survey enrollment data taken in October, 1976.

4. % Average Daily Transactions: The ratio of average daily transactions to average daily membership, multiplied by 100. This percentage was computed from data provided by the Pupil Accounting Office for the first six weeks of the 1976-77 school year. Transactions include new students, transfers in, transfers out, withdrawals, and reentries.

5. Socioeconomic Status: The composite score based on a factor analysis of items reflecting material possessions, size of family unit, socio-cultural activities, use of a non-English language, and educational attainment/occupational status of parents. The score was computed from data provided by the Student Inventory (Marcus and Sheehan, 1977). The score ranged from 25 to 75 with a District average of 50; a score of 25 indicates low SES and a score of 75 indicates a high SES.

6. Parental Education: The percentage of parents having some post-high-school education or training. The data source was the Student Inventory (Marcus and Sheehan, 1977).

7. Teacher Characteristics: The Personnel Office provided data for the following.

   a. % Non-White -- The percentage of Black, Mexican-American, and other teachers among the total number of teachers at a given school.

   b. % Graduate Degree -- The percentage of teachers having a Master's or Doctor's degree among the total number of teachers at a given school.

c. % 6 or more years experience -- The percentage of teachers with six or more years of experience among the total number of teachers at a given school.

8. Special Programs: Programs available in the District over and above the basic curriculum. Descriptions of these programs can be found below.

9. Feeder Schools: The school location numbers of the schools sending some or all of their students, as determined by the current Federal Court bussing order.

10. Deprivation Index: Percentage of students participating in the free-lunch program.

Achievement variables reported in the charts for individual schools include:

1. Median Grade Equivalent: A score indicating the grade level of the median student. The first digit represents the grade and the second digit represents the month within the grade.

2. Median Percentile Rank: A score indicating what percentage of the large-city norming group scored lower than the local median student.

3. Percent Greater Than the National Median: The percentage of local students scoring higher than the lower half of the large-city norming group. A percentage greater than 50 indicates that the local group was superior to the norming group.

4. Gains Within Grade: The difference between median GE scores in 1976 and 1974 within the given grade.

5. Gains Across Grades: The difference between median GE scores in the current grade in 1976 and two grades lower in 1974. The expected gain of students scoring at percentiles 25, 50, and 75 in reading in 1974 would be approximately 16, 19, and 21, respectively.

Northwest Subdistrict

Results: Generalizations that can be made from the Performance Profiles include:

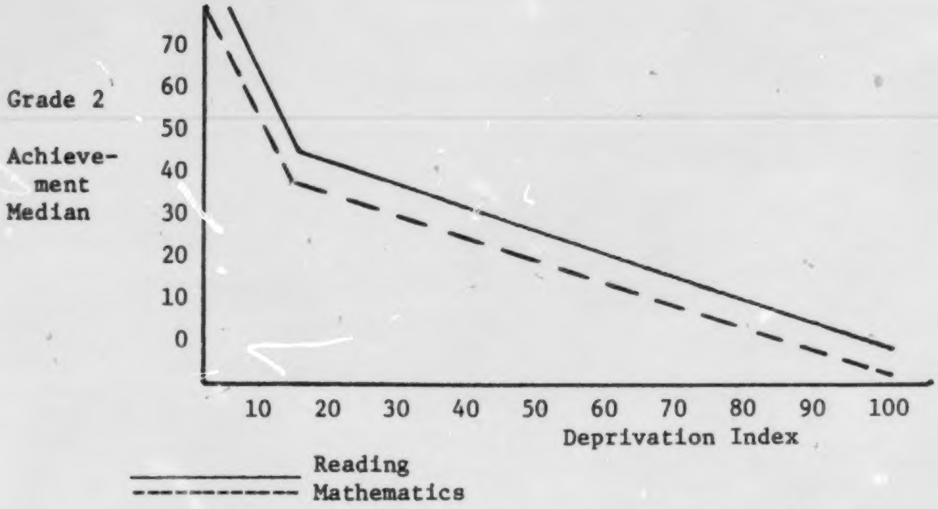
1. Student achievement in reading, language, and mathematics covered the entire spectrum of the norm distribution. For example, at the Grade 2 level there were 17 schools that had more than 20% of their students in the top large-city decile in reading. However, there were also 12 schools that had more than 20% of their Grade 2 students in the lowest large-city decile in reading. This kind of diversity existed in a lesser way in other subtests and grades (see table below).

Number and Percentage of Schools Having
More than 20% of Their Students
Achieving at the Scale Extremes
(Percentage based on total District)

	Lowest Decile						Highest Decile					
	Read		Lang		Math		Read		Lang		Math	
Grade	N	%	N	%	N	%	N	%	N	%	N	%
2	12	10	11	9	9	7	17	13	13	10	4	3
4	12	14	13	14	15	18	3	4	1	1	0	0
6	17	20	16	19	16	19	1	1	0	0	0	0
8	6	26	6	26	6	26	0	0	0	0	0	0
9	2	9	2	9	0	0	0	4	0	0	0	0
12	2	9	2	9	1	4	1	4	0	0	0	0

2. Student achievement in language, mathematics, and reading was closely related to the various socioeconomic variables reported. For example, it was generally true that the higher the deprivation index, the lower the measured achievement. The following figure illustrates the relationship between deprivation index and achievement. This relationship also holds for percentile parental educational level and achievement (see graph below).

3. Student achievement was closely related to percent minority, percent mobility, and percent attendance. All of these variables were in turn related to the socioeconomic variables.



4. The District's emphasis on reading appears to be achieving results. In almost all schools median reading performance exceeded median language and mathematics performance. This fact generally held for all grade levels in all attendance areas. The exception to this occurred at the ninth and twelfth grade levels in low-achieving schools. At those levels the District does not administer functional-level tests. Therefore, it is hypothesized that inability to read inhibits performance on the language and reading tests much more than on the mathematics tests.

5. Median Anglo performance was above norm in all grades and subtests; median minority performance was well below norm in all grades and subtests. For each ethnic group achievement in reading was higher than in mathematics in grades 2-8; for minority groups this was not true in grades 9 and 12. Within each ethnic group median achievement was highest in grade 2, somewhat lower in the remaining grades for Anglo students, and much lower in the remaining grades for minority students, relative to grade norms.

6. Achievement data are summarized by attendance area in the following tables. Each of the tables specifies the percent of students by ethnic background from each of the attendance areas who scored at or above the 50th percentile on large-city norms. For Grades 2, 4, 6, and 8 the Iowa Tests of Basic Skills were used. The subtests reported are: vocabulary (V), word analysis or work study (W), reading (R), language (L), and mathematics (M). For Grades 9 and 12 the Iowa Tests of Educational Development were used. The Subtests reported are: reading (R), language (L), mathematics (M), social studies (SS), science (S), and use of sources (U). In addition, the feeder schools comprising each attendance area and their deprivation indices are also reported.

Hillcrest Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	84	82	83	79	79	58	64	58	58	54	75	75	92	67	75
4	78	74	69	67	62	9	13	14	9	9	15	19	19	17	15
6	81	73	72	65	65	7	9	9	8	7	20	21	23	17	16
8	75	74	70	74	67	5	6	6	5	5	26	16	18	22	11

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	70	69	70	62	59	70	3	13	23	8	5	5	7	8	21	14	7	21
12	73	63	70	59	73	81	21	22	21	22	17	21	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
George B. Dealey	3		John J. Pershing	4	56
L. L. Hotchkiss	4	64	Preston Hollow	0	60
Arthur Kramer	2		Dan D. Rogers	3	56
Henry W. Longfellow	31	56			

Middle School	Index
Ewell D. Walker	41

In the Hillcrest High School Attendance Area median Anglo performance was well above norm in all grades; median minority performance was above norm in grade 2 and well below norm in the remaining grades. For each ethnic group median achievement in reading was higher than in mathematics in grades 2-8; for minority students this was not true in grades 9 and 12. Within each ethnic group lower-grade achievement was generally higher than upper-grade achievement, relative to grade norms.

Thomas Jefferson Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	72	71	70	60	62	35	32	38	39	27	42	36	41	31	29
4	76	71	71	66	62	9	13	11	9	9	16	16	14	13	10
6	78	75	71	70	66	7	8	9	6	5	17	21	21	18	16
8	56	54	47	54	45	10	10	10	9	7	17	19	22	24	13

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	61	64	61	61	54	52	17	23	23	22	9	11	20	30	23	25	19	24
12	67	57	55	54	62	70	17	16	19	19	21	17	19	27	24	26	20	31

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
David G. Burnet	20	56	Henry W. Longfellow	31	56
F. P. Caillet	2	56	K. B. Polk	56	56
Tom W. Field	23	23	Walnut Hill	0	56
Stephen C. Foster	15	56	Sudie L. Williams	23	56

Middle School	Index
Edward H. Cary	26
Thomas J. Rusk	41

In the Jefferson High School Attendance Area median Anglo performance was above norm in all grades (except grade 8 in mathematics); median minority performance was below norm in all grades. For each ethnic group median achievement in reading was higher than in mathematics in grades 2-8; for minority students this was not true in grades 9 and 12. Anglo achievement was highest in grade 6 and lowest in grade 8; minority achievement was highest in grade 2, relative to grade norms.

North Dallas Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

Grade	Anglo						Black						MexAm					
	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	76	77	75	68	72		20	21	26	18	24		28	30	36	18	31	
4	71	68	65	61	57		10	14	13	9	9		15	16	16	13	12	
6	76	71	68	66	63		7	8	8	6	5		17	20	21	17	15	
8	68	67	61	66	57		6	7	7	6	5		13	15	15	18	11	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	23	12	44	37	14	21	5	13	19	14	3	7	10	16	26	11	7	16
12	39	35	30	35	39	30	4	8	8	4	4	8	12	20	14	8	8	20

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Arlington Park	66		Obadiah Knight	56	56
James B. Bonham	71		Maple Lawn	56	56
F. P. Caillet	2	56	Ben Milam	66	66
James W. Fannin	87		Preston Hollow	0	60
Stephen C. Foster	15	56	J. W. Ray	77	
L. L. Hotchkiss	4	64	Dan D. Rogers	3	56
Sam Houston	72		William B. Travis	72	

Middle School	Index
Thomas J. Rusk	41
Alex W. Spence	75
Ewell D. Walker	41

In the North Dallas High School Attendance Area median Anglo performance was above norm in grades 2-8 and below norm in grades 9 and 12; median minority scores were below norm in all grades. For each ethnic group median achievement in reading was higher than in mathematics in grades 2-8; this was not true in grades 9 and 12. Within each ethnic group lower-grade achievement was generally higher than upper-grade achievement, relative to grade norms.

L. G. Pinkston Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo						Black						MexAm					
Grade	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	71	71	71	63	66		15	16	23	14	20		34	31	40	21	34	
4	72	69	67	64	61		7	11	10	8	8		14	13	14	9	10	
6	78	73	71	68	64		5	6	7	5	4		15	19	19	17	15	
8	72	71	64	69	60		6	7	7	6	5		14	16	17	18	11	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	*	*	*	*	*	*	1	5	22	9	1	3	0	10	21	10	1	7
12	*	*	*	*	*	*	1	7	5	2	2	4	4	4	4	9	7	4

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Gabe P. Allen	82		Henry W. Longfellow	31	56
David G. Burnet	20	56	Herbert Marcus	7	58
F. P. Caillet	2	56	Jose Navarro	99	
C. F. Carr	90		John J. Pershing	4	56
George W. Carver	99		Priscilla L. Tyler	99	
Amelia Earhart	87	87	Walnut Hill	0	56
Stephen C. Foster	15	56	Sudie L. Williams	23	56

Middle School	Index
Edward H. Cary	26
Thomas C. Marsh	38
Ewell D. Walker	41

In the Pinkston High School Attendance Area median Anglo performance was above norm in grades 2-8; median minority performance was below norm in all grades. For each ethnic group median achievement in reading was higher than in mathematics in grades 2-8; for minority students this was not true in grades 9 and 12. Anglo achievement was highest in grade 6; minority achievement was highest in grade 2, relative to grade norms.

W. T. White Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	79	82	80	71	74	45	43	49	45	29	47	36	51	32	33
4	71	68	67	63	60	7	11	9	8	9	16	14	14	10	11
6	76	72	69	66	63	4	5	6	4	3	17	20	21	19	17
8	72	71	65	70	61	5	6	7	6	4	13	15	16	18	9

	Anglo						Black						MexAm					
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	70	69	68	59	55	64	20	33	44	25	19	19	21	21	36	33	13	40
12	76	68	74	63	71	74	7	12	12	8	4	6	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder School and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Nathan Adams	4		Henry W. Longfellow	31	56
David G. Burnet	20	56	Herbert Marcus	7	58
William L. Cabell	3		Walnut Hill	0	56
Everette L. DeGolyer	0		Sudie L. Williams	23	56
Stephen C. Foster	15	56	Harry C. Withers	2	
Tom C. Gooch	2				

Middle School	Index
Thomas C. Marsh	38
Thomas J. Rusk	41
Ewell D. Walker	41

In the White High School Attendance Area median Anglo performance was above norm in all grades; median minority performance was generally below norm in all grades. For each ethnic group median achievement in reading was higher than in mathematics in grades 2-8; for minority students this was not true in grades 9 and 12. Within each ethnic group achievement was highest in grade 2; for minority students it was lowest in grade 12, relative to grade norms.

Northwest Subdistrict Summary
Anglo

	R	L	M	SS	S
Grade 2 (Percent of population = 39%)					
Percentile rank of median student	85	75	64		
Range of median percentiles over schools	10-93	13-89	25-84		
Grade equivalent of median student	31	26	22		
Gain in median GE within grade 1974-76	3	4	0		
Grade 4 (Percent of population = 37%)					
Percentile rank of median student	70	66	58		
Range of median percentiles over schools	30-91	28-88	21-83		
Grade equivalent of median student	44	44	41		
Gain in median GE within grade 1974-76	- 1	- 2	- 1		
Gain in median GE across grades 1974-76	16	22	19		
Expected gain in median GE	20	21	20		
Grade 6 (Percent of population = 37%)					
Percentile rank of median student	72	68	62		
Range of median percentiles over schools	36-92	14-91	29-93		
Grade equivalent of median student	65	65	61		
Gain in median GE within grade 1974-76	2	2	1		
Gain in median GE across grades 1974-76	20	19	19		
Expected gain in median GE	20	21	19		
Grade 8 (Percent of population = 46%)					
Percentile rank of median student	64	60	56		
Range of median percentiles over schools	28-72	26-69	32-66		
Grade equivalent of median student	82	80	79		
Gain in median GE within grade 1974-76	- 4	- 4	- 3		
Gain in median GE across grades 1974-76	19	17	19		
Expected gain in median GE	21	21	20		
Grade 9 (Percent of population = 52%)					
Percentile rank of median student	67	64	58	57	54
Range of median percentiles over schools	22-69	20-70	41-64	24-61	20-58
Grade 12 (Percent of population = 65%)					
Percentile rank of median student	66	60	65	58	63
Range of median percentiles over schools	40-84	27-73	39-70	30-71	36-76

Northwest Subdistrict Summary
Black

	R	L	M	SS	S
Grade 2 (Percent of population = 36%)					
Percentile rank of median student	20	20	25		
Range of median percentiles over schools	12-41	13-35	8-46		
Grade equivalent of median student	14	13	14		
Gain in median GE within grade 1974-76	1	0	0		
Grade 4 (Percent of population = 34%)					
Percentile rank of median student	16	10	6		
Range of median percentiles over schools	8-35	4-45	1-23		
Grade equivalent of median student	25	26	26		
Gain in median GE within grade 1974-76	0	0	1		
Gain in median GE across grades 1974-76	12	13	12		
Expected gain in median GE	11	12	18		
Grade 6 (Percent of population = 37%)					
Percentile rank of median student	6	5	3		
Range of median percentiles over schools	2-26	2-26	1-21		
Grade equivalent of median student	35	35	38		
Gain in median GE within grade 1974-76	0	0	0		
Gain in median GE across grades 1974-76	10	9	13		
Expected gain in median GE	16	12	15		
Grade 8 (Percent of population = 30%)					
Percentile rank of median student	10	5	5		
Range of median percentiles over schools	5-15	3-15	2-10		
Grade equivalent of median student	49	46	52		
Gain in median GE within grade 1974-76	- 1	- 2	- 2		
Gain in median GE across grades 1974-76	14	11	14		
Expected gain in median GE	10	11	11		
Grade 9 (Percent of population = 31%)					
Percentile rank of median student	19	17	37	24	16
Range of median percentiles over schools	15-24	15-20	29-41	19-29	16-25
Grade 12 (Percent of population = 23%)					
Percentile rank of median student	7	10	22	13	11
Range of median percentiles over schools	5-22	7-19	22-33	10-26	8-36

Northwest Subdistrict Summary
Mexican-American

	R	L	M	SS	S
Grade 2 (Percent of population = 22%)					
Percentile rank of median student	33	24	35		
Range of median percentiles over schools	15-62	13-35	20-46		
Grade equivalent of median student	16	14	16		
Gain in median GE within grade 1974-76	3	0	2		
Grade 4 (Percent of population = 26%)					
Percentile rank of median student	22	13	10		
Range of median percentiles over schools	10-30	6-30	6-23		
Grade equivalent of median student	27	27	28		
Gain in median GE within grade 1974-76	0	- 2	- 2		
Gain in median GE across grades 1974-76	14	13	14		
Expected gain in median GE	12	18	14		
Grade 6 (Percent of population = 24%)					
Percentile rank of median student	15	18	12		
Range of median percentiles over schools	6-31	8-37	4-22		
Grade equivalent of median student	41	42	44		
Gain in median GE within grade 1974-76	0	1	2		
Gain in median GE across grades 1974-76	14	13	14		
Expected gain in median GE	17	13	16		
Grade 8 (Percent of population = 21%)					
Percentile rank of median student	15	11	10		
Range of median percentiles over schools	7-20	6-22	4-19		
Grade equivalent of median student	53	51	56		
Gain in median GE within grade 1974-76	0	- 2	0		
Gain in median GE across grades 1974-76	12	10	14		
Expected gain in median GE	12	13	12		
Grade 9 (Percent of population = 15%)					
Percentile rank of median student	19	20	37	28	16
Range of median percentiles over schools	15-32	17-32	29-44	19-48	13-30
Grade 12 (Percent of population = 10%)					
Percentile rank of median student	12	16	22	19	18
Range of median percentiles over schools	7-17	12-32	22-27	19-28	11-25

Special Programs in DISD Schools

1. Targeted Achievement in Reading Program (TARP)
2. Targeted Achievement in Mathematics Program (TAMP)
3. Multicultural Social Studies Program (MSSP)
4. Community Schools Program
5. Community Involvement Program (CIP)
6. Bilingual Education Component (BEC)
7. Programmed Tutorial Reading Project (PTRP)
8. Reading is Fundamental (RIF)
9. Partners in Reading
10. Advocate/Packet Program
11. Teacher Training Through the Development and Use of Teaching/Learning Packets
12. Emergency School Aid Act (ESAA) Pilot Project
13. Emergency School Aid Act (ESAA) Basic
14. Emergency School Aid Act (ESAA) Special I
15. Special I/Bilingual
16. Emergency School Aid Act (ESAA) Special II
17. Dallas Independent School District's Secondary Reading Program
18. Conceptually Oriented Musicianship Program (COMP)
19. Conceptual Approach to Teaching Science (CATS)
20. Management System
21. Home Education Learning Program (H.E.L.P.)
22. Success Through Strings (STS)
23. Learning Through Piano (LTP)
24. Teaching Art Concepts and Skills (TACS)
25. Fundamental Levels in Physical Skills (FLIPS)
26. Assessment and Accountability Model for Elementary School Guidance
27. Job Placement, Counseling and Follow-up Center
28. K-12 Career Education Infusion
29. Challenging the Gifted Child Project
30. Career Development Program for the Hearing Impaired K-12
31. Bilingual Computer Assisted Instruction
32. Supplementary Spanish Easy Reading Materials Project (SSERM)
33. Parent Education Program (PEP)
34. Creative Arts Curriculum
35. Nutrition Education Program
36. Comprehensive Health Education or Health Education - Skills for Living
37. Environmental Education Program
38. Alternative Science Project
39. Career Oriented Pretechnical Physics Mini-courses
40. Bilingual Education Program (BEP)
41. Indo-Chinese Component
42. Campus Level Planning (CLP)
43. Highlighting Early Learning Problems (HELP)
44. Plan A
45. Project Zero Reject
46. Career Development Centers (CDC)
47. Magnet Schools
48. Academies
49. Vanguard Schools
50. Lincoln High School Renewal Project (LHSRP)
51. Instructional Personnel (Resource Teacher/Instructional Leaders)

39

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    233 NATHAN ADAMS                 (KN-03)                                                NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   2         2          2          2          2          2          2          2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C    GRD,EQUIV,MED,    32         12                    33         13                    22         11
H M
I E %-ILE RANK         90         12                    86         20                    64         12
E N
V T % > NATL,MED,      87          0                    75          0                    77          0
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,     %       %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 9,11,
S    DAILY            NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %       23,25,43,44,
C D MEMBER   ADA   WHITE     TRANS,   STATUS     %        %      NON     GRAD,   6 OR MORE
H A  SHIP                                       MOM      DAD    WHITE   DEGREE  YRS,EXPER,
O T                                                                                       FEEDER SCHOOLS: LOC #'S
O A    178  89,0    11,4     0,17      73,2    ****     ****    38,0    25,0       50,0
L
-----------------------------------------------------------------------------------------------------------------
    103 GABE P, ALLEN                (KN-03)                                                NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   2         2          2          2          2          2          2          2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD,EQUIV,MED,    19         12         17         14         13         14         17         14         18
  M
  E %-ILE RANK         20         12         41         24         20         24         40         25         46
  N
  T % > NATL,MED,      14         13         35          0         17         10         33         38         37

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,     %       %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY            NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %       5, 6, 8, 9,22,24,25,31,
C D MEMBER   ADA   WHITE     TRANS,   STATUS     %        %      NON     GRAD,   6 OR MORE  40,43,44,51,
  A  SHIP                                       MOM      DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A    758  88,6    92,6     0,10      32,1    ****     ****    62,0    50,0       26,0

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    106 ARLINGTON PARK               (KN-03)                                                NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   2         2          2          2          2          2          2          2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C    GRD,EQUIV,MED,               15                               13                               16
H M
I E %-ILE RANK                    26                               20                               35
  N
V T % > NATL,MED,                 30                                7                               11

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,     %       %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY            NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %       5, 8, 9,24,25,43,44,51,
  D MEMBER   ADA   WHITE     TRANS,   STATUS     %        %      NON     GRAD,   6 OR MORE
  A  SHIP                                       MOM      DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A    112  87,5   100,0     0,18      52,5    ****     ****    50,0    25,0       25,0


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    111 JAMES B, BONHAM              (KN-03)                                                NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   2         2          2          2          2          2          2          2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD,EQUIV,MED,    30         27         21         20         13         16         19         20         16
  M
  E %-ILE RANK         83         76         62         56         20         35         50         55         35
  N
  T % > NATL,MED,      67         99         67         58          0         22         58         99         32

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,     %       %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY            NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %       5, 6, 8, 9,22,24,25,35,
  D MEMBER   ADA   WHITE     TRANS,   STATUS     %        %      NON     GRAD,   6 OR MORE  41,43,44,51,
  A  SHIP                                       MOM      DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A    347  91,8    85,3     0,27      43[illegible]   ****     ****    44,0    38,0       69,0
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[illegible] WILLIAM L. CABELL         (KN=03)                                              NORTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
S
C    GRD.EQUIV.MED.    31         32         32           31         41         18           22         16         20
H  M
T  E %=ILE RANK        85         86         86           83         96         46           64         35         55
F  N
V  T % > NATL.MED.     86         99         99           84         99          0           84         50         99
F
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,11,23,
S    DAILY          NON     DAILY    ECON.  POST-HIGH SCHL     %       %        %          25,43,44,
C  D MEMBER  ADA   WHITE    TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE
H  A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
O  T                                                                                    FEEDER SCHOOLS: LOC #'S
O  A   264  87.4    6.0    0.10     65.6    ****   ****     27.0   45.0      91.0
L
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   122 C. F. CARR               (KN=03)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.    12         14         15           10         11         13           20         14         12
   M
   F %=ILE RANK        12         20         26            9         13         20           55         25         15
   N
   T % > NATL.MED.      0         23         33            0         13         17           99         21         17

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY          NON     DAILY    ECON.  POST-HIGH SCHL     %       %        %          4, 5, 9,24,25,43,44,45,
   D MEMBER  ADA   WHITE    TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE     51.
   A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                    FEEDER SCHOOLS: LOC #'S
   A   501  93.3   99.2    0.21     45.1    ****   ****     48.0   44.0      67.0

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   124 GEORGE W. CARVER         (KN=03)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.               14         12                      13         14                      14         12
   M
   E %=ILE RANK                   20         12                      20         24                      25         15
   N
   T % > NATL.MED.                16          0                      16         13                      23         13

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL     %       %        %          4, 5, 9,18,19,20,24,25,
   D MEMBER  ADA   WHITE    TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE     43,44,51,
   A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                    FEEDER SCHOOLS: LOC #'S
   A   331  88.3  100.0    0.07     39.8    ****   ****     50.0   55.0      55.0


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   134 GEORGE B. DEALEY         (KN=03)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.    32         31                      26         33                      20         20
   M
   E %=ILE RANK        86         85                      75         86                      55         55
   N
   T % > NATL.MED.     67         99                      67         99                      58         99

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL     %       %        %          43,44,
   D MEMBER  ADA   WHITE    TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE
   A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                    FEEDER SCHOOLS: LOC #'S
   A   141  88.3    9.2    0.22     68.2    ****   ****     29.0   57.0     100.0
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    133 EVERETTE L, DEGOLYER      (KN=03)                                                 NORTHWEST SUBDISTRICT

             SUBTEST:           R E A D I N G                  L A N G U A G E               M A T H E M A T I C S
           ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
               GRADE:  2          2         2           2         2         2           2         2         2
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
A
C   GRD,EQUIV,MED.     32         10                    26        10                    27        18
H M
I E %=ILE RANK         86         8                     75        9                     84        46
E N
V T % > NATL,MED.      92         0                     88        0                     86        0
E
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 9,11,23,
S    DAILY          NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %          25,41,43,44.
C  D MEMBER   ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
H  A SHIP                                      MOM     DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
O  A   159  89,6    7,2    0,09     72,9     ****    ****     29,0    43,0       86,0
L
----------------------------------------------------------------------------------------------------------------
    140 AMELIA EARHART            (KN=03)                                                 NORTHWEST SUBDISTRICT

             SUBTEST:           R E A D I N G                  L A N G U A G E               M A T H E M A T I C S
           ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
               GRADE:  2          2         2           2         2         2           2         2         2
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
A
C   GRD,EQUIV,MED.                16                              13                              12
  M
I E %=ILE RANK                    33                              20                              15
  N
  T % > NATL,MED.                 22                              16                              17

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY          NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %          4, 5, 6, 8, 9,18,19,20,
   D MEMBER   ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE     21,22,24,25,43,44,49,51.
   A SHIP                                      MOM     DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A   550  90,9   97,7    0,13     42,8     ****    ****     35,0    31,0       52,0

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    143 JAMES W. FANNIN           (KN=03)                                                 NORTHWEST SUBDISTRICT

             SUBTEST:           R E A D I N G                  L A N G U A G E               M A T H E M A T I C S
           ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
               GRADE:  2          2         2           2         2         2           2         2         2
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD,EQUIV,MED.     11         12        13          11        11        11          14        11        13
  M
  E %=ILE RANK         10         12        15          13        13        13          25        12        20
  N
  T % > NATL,MED.      16         11        8           12        6         4           26        11        13

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %          5, 6, 8, 9,24,25,40,41,
   D MEMBER   ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE     43,44,51.
   A SHIP                                      MOM     DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A   553  87,3   86,2    0,21     39,7     ****    ****     42,0    38,0       54,0


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    148 TOM C. GOOCH              (KN=03)                                                 NORTHWEST SUBDISTRICT

             SUBTEST:           R E A D I N G                  L A N G U A G E               M A T H E M A T I C S
           ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
               GRADE:  2          2         2           2         2         2           2         2         2
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD,EQUIV,MED.     31         12        15          31        18        10          24        14        13
  M
  E %=ILE RANK         86         12        26          86        46        9           73        25        20
  N
  T % > NATL,MED.      80         33        50          76        33        50          83        33        50

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 9,23,25,
     DAILY          NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %          43,44.
   D MEMBER   ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
   A SHIP                                      MOM     DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A   251  88,4    8,6    0,10     68,0     ****    ****     17,0    50,0       92,0
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[illegible] SAM HOUSTON              (KN=03)                                                 NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:  2          2           2            2          2           2            2          2           2
  SCORE TYPE
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
A
C   GRD,EQUIV,MED,    17         12          14           16         11          16           20         13          14
H M
I E %-ILE RANK        41         12          20           35         13          35           55         20          25
E N
V T % > NATL,MED,     33         33          38           25         22          11           63         11          14
E
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER,    %     %     % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
S   DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %       %        %           5, 6, 9,19,22,24,25,43,
C D MEMBER  ADA  WHITE   TRANS,  STATUS     %       %      NON    GRAD,  6 OR MORE       44,51,
H A SHIP                                   MOM     DAD    WHITE  DEGREE  YRS,EXPER,
O T                                                                                      FEEDER SCHOOLS; LOC #'S
O A   321  86,3  84,3    0,28     35,3     ****    ****    47,0   47,0      13,0
L
---------------------------------------------------------------------------------------------------------------------
  169 ARTHUR KRAMER                (KN=03)                                                 NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:  2          2           2            2          2           2            2          2           2
  SCORE TYPE
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
A
C   GRD,EQUIV,MED,    30         31                       31         20                       24         26
H M
I E %-ILE RANK        83         85                       83         56                       73         81
E N
V T % > NATL,MED,     77         99                       77         99                       81         99
E
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER,    %     %     % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 9,23,25,
S   DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %       %        %           33,43,44,
C D MEMBER  ADA  WHITE   TRANS,  STATUS     %       %      NON    GRAD,  6 OR MORE
H A SHIP                                   MOM     DAD    WHITE  DEGREE  YRS,EXPER,
O T                                                                                      FEEDER SCHOOLS; LOC #'S
O A   121  87,7   7,7    0,03     74,1     ****    ****    33,0   6[illegible],0      83,0
L
---------------------------------------------------------------------------------------------------------------------
  248 JOSE NAVARRO                 (KN=03)                                                 NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:  2          2           2            2          2           2            2          2           2
  SCORE TYPE
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD,EQUIV,MED,               15          13                      11           9                      14           9
  M
  E %-ILE RANK                   26          15                      13           7                      25           6
  N
  T % > NATL,MED,                24          25                       9          25                      15          25

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER,    %     %     % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %       %        %           5, 7, 8, 9,24,25,43,44,
  D MEMBER  ADA  WHITE   TRANS,  STATUS     %       %      NON    GRAD,  6 OR MORE       51,
  A SHIP                                   MOM     DAD    WHITE  DEGREE  YRS,EXPER,
  T                                                                                      FEEDER SCHOOLS; LOC #'S
  A   549  90,5 100,0    0,19     43,1     ****    ****    29,0   42,0      37,0


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  196 J, W, RAY                    (KN=03)                                                 NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:  2          2           2            2          2           2            2          2           2
  SCORE TYPE
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD,EQUIV,MED,               15                                  14                                  18
  M
  E %-ILE RANK                   26                                  24                                  46
  N
  T % > NATL,MED,                36                                  31                                  49

. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER,    %     %     % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %       %        %           5, 8, 9,10,24,25,43,44,
  D MEMBER  ADA  WHITE   TRANS,  STATUS     %       %      NON    GRAD,  6 OR MORE       51,
  A SHIP                                   MOM     DAD    WHITE  DEGREE  YRS,EXPER,
  T                                                                                      FEEDER SCHOOLS; LOC #'S
  A   309  89,6 100,0    0,20     42,2     ****    ****    43,0   21,0      71,0
```

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   217 WILLIAM B. TRAVIS          (KN=03)                                           NORTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                  L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
           GRADE:   2          2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD,EQUIV,MED.   29        15         14          20        14         16         22        16         18
H M
I E %=ILE RANK       81        26         20          56        24         35         64        35         46
E N
V T % > NATL,MED.    99        29         26          99        18         11         99        41         47
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: ., 2, 3,
S    DAILY        NON     DAILY    ECON,   POST-HIGH SCHL    %        %        %          4, 5, 6, 8, 9,22,24,25,
C  D MEMBER  ADA  WHITE   TRANS.  STATUS     %      %       NON     GRAD.  6 OR MORE     35,40,43,44,51.
H  A  SHIP                                  MOM    DAD     WHITE  DEGREE  YRS.EXPER.
O  T                                                                                   FEEDER SCHOOLS: LOC #'S
O  A   257  92,2  96,5     0,20     36,3    ****   ****     43,0   36,0      14,0
L
------------------------------------------------------------------------------------------------------------
   221 PRISCILLA L. TYLER         (KN=03)                                           NORTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                  L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
           GRADE:   2          2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD,EQUIV,MED.             13                               11                              13
H M
I E %=ILE RANK                 15                               13                              20
E N
V T % > NATL,MED.              15                                4                              17
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY        NON     DAILY    ECON,   POST-HIGH SCHL    %        %        %          5, 8, 9,10,19,24,25,43,
C  D MEMBER  ADA  WHITE   TRANS.  STATUS     %      %       NON     GRAD.  6 OR MORE     44,51.
H  A  SHIP                                  MOM    DAD     WHITE  DEGREE  YRS.EXPER.
O  T                                                                                   FEEDER SCHOOLS: LOC #'S
O  A   377  90,1 100,0     0,03     40,1    ****   ****     30,0   12,0      35,0
L
------------------------------------------------------------------------------------------------------------
   230 HARRY C. WITHERS           (KN=03)                                           NORTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                  L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
           GRADE:   2          2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD,EQUIV,MED.   32        24                     31        29                    24        22
H M
I E %=ILE RANK       86        70                     83        80                    73        64
E N
V T % > NATL,MED.    93        99                     83        99                    83        99
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
S    DAILY        NON     DAILY    ECON,   POST-HIGH SCHL    %        %        %         43,44,
C  D MEMBER  ADA  WHITE   TRANS.  STATUS     %      %       NON     GRAD.  6 OR MORE
H  A  SHIP                                  MOM    DAD     WHITE  DEGREE  YRS.EXPER.
O  T                                                                                   FEEDER SCHOOLS: LOC #'S
O  A   164  89,1   4,8     0,13     71,8    ****   ****     33,0   56,0      67,0


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   116 DAVID G. BURNET            (KN=06)                                           NORTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                  L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
           GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.  25 39 59  14 24 33  15 24 44    18 40 57  14 26 32  14 24 44    21 36 57  15 24 34  15 28 47
  M
  E %=ILE RANK      72 60 62  20 14  5  26 14 21    46 57 56  24 10  2  24  6 24    60 39 50  30  4  1  30 10 19
  N
  T % > NATL,MED.   70 55 61  45  9  3  36 15 20    49 55 60  18  8  3  21 11 33    64 43 52  18  7  1  25 15 23

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY        NON     DAILY    ECON,   POST-HIGH SCHL    %        %        %          5, 6, 9,14,15,23,24,25,
   D MEMBER  ADA  WHITE   TRANS.  STATUS     %      %       NON     GRAD.  6 OR MORE     41,43,44,51.
   A  SHIP                                  MOM    DAD     WHITE  DEGREE  YRS.EXPER.
   T                                                                                   FEEDER SCHOOLS: LOC #'S
   A  1400  89,1  49,6     0,24     49,2    ****   ****     31,0   53,0      79,0      (119,122)
```

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-----------------------------------------------------------------------------------------------------------------------
    120 F, P, CAILLET                 (KN-06)                                                   NORTHWEST SUBDISTRICT

             SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
           ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
               GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD,EQUIV,MED.     31 46 67  14 28 39  28 27 40    26 42 70  10 26 39  26 26 39    22 39 64  18 24 40  24 27 40
H M
I E %-ILE RANK         85 77 77  20 24 12  79 22 14    75 62 76   9 10 12  75 10 12    64 52 69  46  4  5  73  8  5
E N
V T % > NATL,MED.      76 67 80  50 17 15  67 13 15    71 66 75  50  7 15  67 14 14    75 53 71  50  7 13  67  5  6
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
S     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL    %        %         %         5, 6, 9,14,15,22,23,24,
C D MEMBER   ADA   WHITE     TRANS,  STATUS     %       %      NON     GRAD,   6 OR MORE    25,26,41,42,43,44,51,
H A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS,EXPER,
O T                                                                                        FEEDER SCHOOLS: LOC #'S
O A    783  90,9    45,3     0,08      64,7     ****    ****      29,0    34,0        62,0   (103,106)
L
-----------------------------------------------------------------------------------------------------------------------
    144 TOM W, FIELD                  (KN-06)                                                   NORTHWEST SUBDISTRICT

             SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
           ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
               GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
    GRD,EQUIV,MED.     14 32 52  33 27      6 18 29    17 33 40  31 35     14 18 28    17 31 50  28 32     10 24 36
  M
  E %-ILE RANK         20 36 42  88 22      2  3  2    40 36 14  83 42     24  1  1    40 19 29  87 23      8  4  2
  N
  T % > NATL,MED.      29 43 47  99 50      0  0  0    36 43 33  99 50     25  0  0    36 21 33  99 50     13  0  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 8, 9,25,
S     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL    %        %         %         43,44,
C D MEMBER   ADA   WHITE     TRANS,  STATUS     %       %      NON     GRAD,   6 OR MORE
H A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS,EXPER,
O T                                                                                        FEEDER SCHOOLS: LOC #'S
O A    208  83,6    12,4     0,35      41,4     ****    ****      31,0    38,0        69,0
L
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    145 STEPHEN C, FOSTER             (KN-06)                                                   NORTHWEST SUBDISTRICT

             SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
           ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
               GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.     28 44 63  25 24 33  17 27 40    22 42 61  18 26 34  14 26 37    18 40 63  14 24 38  15 26 40
  M
  E %-ILE RANK         79 70 68  72 14  5  41 22 14    64 64 66  46 10  4  24 10  8    46 55 69  25  4  3  30  6  5
  N
  T % > NATL,MED.      70 66 67  99 10  3  39 21 19    62 70 62   0 11  3  33 13 17    50 56 67   0 10  0  31 10 19

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY    ECON,  POST-HIGH SCHL    %        %         %         5, 6, 9,14,15,22,23,24,
  D MEMBER   ADA   WHITE     TRANS,  STATUS     %       %      NON     GRAD,   6 OR MORE    25,41,43,44,51,
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                        FEEDER SCHOOLS: LOC #'S
  A    948  88,9    54,5     0,15      55,3     ****    ****      33,0    65,0        80,0   (124,135,160,221)


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    159 L, L, HOTCHKISS               (KN-06)                                                   NORTHWEST SUBDISTRICT

             SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
           ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
               GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.     34 40 56  28 27 33     27 40    31 40 52  17 29 36     27 44    22 35 56  18 25 36     26 42
  M
  E %-ILE RANK         90 60 53  79 22  5     22 14    83 57 46  40 20  7     13 24    64 35 48  46  5  2      6  8
  N
  T % > NATL,MED.      87 63 55  99 36 38     12 19    67 61 49  50 36 25     14 17    77 35 47  50  9 13     10 10

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY    ECON,  POST-HIGH SCHL    %        %         %         5, 6, 9,14,15,23,24,25,
  D MEMBER   ADA   WHITE     TRANS,  STATUS     %       %      NON     GRAD,   6 OR MORE    43,44,51,
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                        FEEDER SCHOOLS: LOC #'S
  A    541  86,8    53,2     0,22      57,2     ****    ****      32,0    36,0        68,0   (143)
```

```
           SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.   14 38 50      25     14 30 35    13 36 54      30     16 28 38    16 37 52      30      16 28 44
  M
  E %-ILE RANK       20 54 36      16     20 30  6    20 45 48      24     35 16 10    35 43 35      16      35 10 12
  N
  T % > NATL,MED.    27 56 31       0     27 19 18    23 44 46       0     22 19 18    27 38 42       0      32 19 16

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL     %        %        %          5, 6, 8, 9,24,25,36,41,
  D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %       NON     GRAD.  6 OR MORE     42,43,44,51.
  A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS,EXPER.
  T                                                                                         FEEDER SCHOOLS; LOC #'S
  A   595  94,2   72,3     0,18     37,6     ****    ****     38,0    46,0      69,0

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   179 HENRY W. LONGFELLOW        (KN-06)                                                          NORTHWEST SUBDISTRICT

           SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.   32 50 74  17 24 35  38 28 50    24 49 68  16 26 35  16 32 48    22 46 66  10 25 36  18 34 54
  M
  E %-ILE RANK       86 85 87  41 14  6  95 24 36    70 77 73  35 10  5  35 32 35    64 80 75   8  5  2  46 31 42
  N
  T % > NATL,MED.    67 81 98  41 12  9  99 33 40    78 84 92  47  9 10   0 33 40    67 79 86  35  9  8   0 33 20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL     %        %        %          5, 9,10,14,23,24,25,41,
  D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %       NON     GRAD.  6 OR MORE     43,44,51.
  A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS,EXPER.
  T                                                                                         FEEDER SCHOOLS; LOC #'S
  A   656  91,7   69,1     0,16     51,7     ****    ****     31,0    46,0      74,0        (140,169,230,248)

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   181 MAPLE LAWN                 (KN-06)                                                          NORTHWEST SUBDISTRICT

           SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.   21 36 61  16 21 41  16 22 43    24 33 50  13 26 41  13 27 43    23 32 50  16 27 45  16 28 43
  M
  E %-ILE RANK       62 48 64  33  8 15  33 10 19    70 36 40  20 10 16  20 13 21    69 23 29  35  8 14  35 10 10
  N
  T % > NATL,MED.    56 50 60  29 12 19  28 28 26    63 35 40  21 17  6  17 13 30    88 35 47  25  0  6  36 17 14

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL     %        %        %          5, 8, 9,23,24,25,41,43,
  D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %       NON     GRAD.  6 OR MORE     44,51.
  A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS,EXPER.
  T                                                                                         FEEDER SCHOOLS; LOC #'S
  A   543  91,6   77,7     0,31     49,0     ****    ****     26,0    43,0      57,0


------------------------------------------------------------------------------------------------------------------------
   182 HERBERT MARCUS             (KN-06)                                                          NORTHWEST SUBDISTRICT

           SUBTEST:        R E A D I N G                     L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.   30 30 58  36 27 36  26 24 37    26 31 56  33 26 42  18 25 38    22 32 58  16 28 36  18 26 40
  M
  E %-ILE RANK       83 30 57  92 22  7  74 14  8    75 28 52  86 10 18  46  8 10    64 23 53  35 10  2  46  6  5
  N
  T % > NATL,MED.    69 44 60  99 18  0  89 10 12    65 37 57  99 18 13  33 15 12    67 37 57  33 17  0  44  9 10

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL     %        %        %          5, 6, 9,14,15,18,22,23,
  D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %       NON     GRAD.  6 OR MORE     24,25,26,42,43,44,51.
  A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS,EXPER.
  T                                                                                         FEEDER SCHOOLS; LOC #'S
  A   686  89,3   49,8     0,10     55,5     ****    ****     24,0    43,0      77,0        (103)
```

```
                                                                                              ----------------
   184 BEN MILAM                 (KN-06)                                            NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                 L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED.   13 28 33  17          10 27 42   10 22 32   7          13 28 37   18 23 27  15          12 26 38
 M
 E %-ILE RANK       15 24  5  41           8 22 17    9  3  2   3          20 16  8   46  3  1  30          15  6  3
 N
 T % > NATL,MED.    17 33 17   0          50  8 21    0 20 33   0          25  8 14   50 17 17   0          25  8  7

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON      DAILY    ECON,  POST-HIGH SCHL    %        %        %         5, 8, 9,24,25,41,43,44,
 D MEMBER  ADA  WHITE     TRANS.  STATUS     %       %      NON     GRAD,  6 OR MORE    51.
 A  SHIP                                    MOM     DAD    WHITE  DEGREE  YRS,EXPER.
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   182  89,4  67,6     0,40     46,1    ****    ****     32,0    53,0      53,0

-----------------------------------------------------------------------------------------------------------------
   193 JOHN J. PERSHING          (KN-06)                                            NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                 L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED.   32 45 66  19 24 28  35 19 36   29 48 69  35 25 32  37 21 43   24 42 60  22 24 33  29 22 40
 M
 E %-ILE RANK       86 79 76  54 14  2  91  4  7   83 75 76  89  8  2  91  2 21   73 68 62  64  4  1  90  2  5
 N
 T % > NATL,MED.    91 73 77  99  8  9  99  0 17   91 64 80  99 14  9  99  0 17   85 69 65  99  7  5  99  0 18

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON      DAILY    ECON,  POST-HIGH SCHL    %        %        %         5, 9,14,23,24,25,36,43,
 D MEMBER  ADA  WHITE     TRANS.  STATUS     %       %      NON     GRAD,  6 OR MORE    44,51.
 A  SHIP                                    MOM     DAD    WHITE  DEGREE  YRS,EXPER.
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   654  91,3  50,2     0,13     67,7    ****    ****     42,0    45,0      70,0      (124,134,221)

-----------------------------------------------------------------------------------------------------------------
   194 K, B, POLK                (KN-06)                                            NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                 L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED.   42 53 78  14 29 42     49      31 56 80  16 36 38     42      28 48 76  14 29 40     37
 M
 E %-ILE RANK       98 90 92  20 27 17     81      83 88 90  35 45 12     62      87 83 91  25 13  6     43
 N
 T % > NATL,MED.    99 99 99  30 29 20     99      99 96 99  36 33 22     99      99 88 98  22 17 14      0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON      DAILY    ECON,  POST-HIGH SCHL    %        %        %         5, 8, 9,24,25,43,44,49,
 D MEMBER  ADA  WHITE     TRANS.  STATUS     %       %      NON     GRAD,  6 OR MORE    51.
 A  SHIP                                    MOM     DAD    WHITE  DEGREE  YRS,EXPER.
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   583  96,3  83,2     0,14     48,0    ****    ****     45,0    31,0      59,0


-----------------------------------------------------------------------------------------------------------------
   195 PRESTON HOLLOW            (KN-06)                                            NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                 L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED.   34 51 64     30 38  44 30 46   35 56 74     28 45  35 30 49   26 44 63     20 47  30 26 48
 M
 E %-ILE RANK       91 85 74     30 10  98 30 26   89 88 81     16 26  98 24 37   81 68 73      1 19  92  6 22
 N
 T % > NATL,MED.    93 91 83     25 10  99 18 15   95 85 76     45  7  99 25 37   90 78 80      0 10  99  7 22

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON      DAILY    ECON,  POST-HIGH SCHL    %        %        %         5, 6, 9,14,15,22,23,24,
 D MEMBER  ADA  WHITE     TRANS.  STATUS     %       %      NON     GRAD,  6 OR MORE    25,26,42,43,44,51.
 A  SHIP                                    MOM     DAD    WHITE  DEGREE  YRS,EXPER.
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   457  90,9  45,9     0,14     65,8    ****    ****     32,0    36,0      64,0      (217)
```

```
  203 DAN D, ROGERS              (KN-06)                                          NORTHWEST SUBDISTRICT

        SUBTEST:        R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.   32 44 56   3 29 46  21 29 48   26 39 58  11 29 39  18 31 44   24 38 56  24 32 46  20 32 48
M
E %-ILE RANK       88 70 53   1 27 26  62 27 31   75 54 60  13 20 12  46 28 24   73 48 48  73 23 16  55 23 22
N
T % > NATL,MED.    85 66 53   0 19  7  83 28 25   80 56 57   0 12  5  50 23 20   85 48 48  99 19  5  67 22 18

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON,   POST-HIGH SCHL    %       %        %         5, 6, 9,14,15,22,23,24,
D MEMBER   ADA   WHITE    TRANS,   STATUS     %      %      NON    GRAD,  6 OR MORE    25,36,41,43,44,51.
A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   892   90,8   51,8     0,17     63,0     ****   ****     27,0   53,0      76,0    (111,196)

----------------------------------------------------------------------------------------------------------------
  224 WALNUT HILL                (KN-06)                                          NORTHWEST SUBDISTRICT

        SUBTEST:        R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.   32 51 65  11 26 36  25 20 49   24 52 64  11 26 32  22 28 41   21 49 63   8 26 35  18 28 43
M
E %-ILE RANK       86 87 77  10 19  7  72  6 33   70 82 66  13 10  2  64 16 16   60 83 69   3  6  2  46 10 10
N
T % > NATL,MED.    80 91 79   0 14  3  99  0 33   70 89 77   0 10  2  67 11 44   70 84 71   0 11  2  50 18 33

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON,   POST-HIGH SCHL    %       %        %         5, 9,14,23,24,25,41,43,
D MEMBER   ADA   WHITE    TRANS,   STATUS     %      %      NON    GRAD,  6 OR MORE    44,51.
A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   574   92,0   42,0     0,09     71,2     ****   ****     27,0   46,0      65,0    (124,221,233)

----------------------------------------------------------------------------------------------------------------
  226 SUDIE L, WILLIAMS          (KN-06)                                          NORTHWEST SUBDISTRICT

        SUBTEST:        R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.   18 47 69  21 24 34  21 28 59    9 49 70  24 26 33  14 26 63   14 46 58  18 26 36  10 27 53
M
E %-ILE RANK       48 77 79  62 14  5  62 24 60    7 77 76  70 10  3  24 10 65   25 74 53  46  6  2   8  8 39
N
T % > NATL,MED.    50 82 80  56 10  6  99 14 88    0 75 75  67  8  8   0 25 63   50 77 55  33  8  1   0 13 25

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON,   POST-HIGH SCHL    %       %        %         5, 9,14,23,24,25,43,44,
D MEMBER   ADA   WHITE    TRANS,   STATUS     %      %      NON    GRAD,  6 OR MORE    51.
A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   611   91,0   62,0     0,08     52,4     ****   ****     29,0   52,0      81,0    (140,148,248)


----------------------------------------------------------------------------------------------------------------
  44 EDWARD H, CARY              (07-08)                                          NORTHWEST SUBDISTRICT

        SUBTEST:        R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
          GRADE:  8          8          8          8          8          8          8          8          8
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.  76         53         57         71         49         58         72         56         61
M
E %-ILE RANK      56         15         20         47          8         22         46         10         19
N
T % > NATL,MED.   56         11         22         48          9         25         46          7         17

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS:14,36,44,
   DAILY          NON     DAILY    ECON,   POST-HIGH SCHL    %       %        %
D MEMBER   ADA   WHITE    TRANS,   STATUS     %      %      NON    GRAD,  6 OR MORE
A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A  1029   94,2   52,7     0,11     56,7     37,6   44,3     29,0   48,0      62,0    (116,144,145,179,194,224,
                                                                                      228)
   5[illegible] THOMAS C. MARSH          (07-08)                                               NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:  8          8          8           8          8          8           8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   87         48         52          85         43         50          82         50         53
 M
 E %-ILE RANK       72          9         13          68          3          9          62          4          6
 N
 T % > NATL.MED.    77          5         13          68          6         12          63          4          7

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS:14,36,44,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %      %      NON     GRAD.  6 OR MORE
 A SHIP                                      MOM    DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A  1190  93.0   46.0     0.06     62.8     46.2   54.8    33.0    44.0      70.0       (116,120,145,179,182,228)

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   55 THOMAS J. RUSK          (07-08)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:  8          8          8           8          8          8           8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   71         51         56          71         54         56          71         53         57
 M
 E %-ILE RANK       45         12         19          46         15         19          40          6         12
 N
 T % > NATL.MED.    50         10         18          46         14         20          44          4         11

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS:12,44,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %      %      NON     GRAD.  6 OR MORE
 A SHIP                                      MOM    DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A   698  94.2   59.8     0.14     56.5     33.6   41.0    43.0    34.0      54.0       (120,145,168,181,182)


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   57 SEQUOYAH                (07-08)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:  8          8          8           8          8          8           8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   62         44         46          43         41         48          72         46         60
 M
 E %-ILE RANK       28          5          7           3          2          7          42          2         17
 N
 T % > NATL.MED.    50          0         40          50          0         25          25          0          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS:37,44,48,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %      %      NON     GRAD.  6 OR MORE
 A SHIP                                      MOM    DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A    83  88.8   88.4     0.12     *****    ****   ****    40.0    30.0      60.0


----------------------------------------------------------------------------------------------------------------------
   58 ALEX W. SPENCE          (07-08)                                                  NORTHWEST SUBDISTRICT

          SUBTEST:         R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:  8          8          8           8          8          8           8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   62         48         50          60         46         47          67         52         53
 M
 E %-ILE RANK       28          9         11          26          5          6          32          5          6
 N
 T % > NATL.MED.    33          3         12          42          3          9          31          3         12

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS:12,30,34,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %         42,44,
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %      %      NON     GRAD.  6 OR MORE
 A SHIP                                      MOM    DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A   593  77.7   82.1     0.14     30.2     13.2   11.6    20.0    37.0      54.0       (159,184,195,203)
```

```
     64 EWELL D. WALKER          (07-08)                                                       NORTHWEST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:    ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
              GRADE:  8          8          8           8          8          8           8          8          8
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 A
 C   GRD,EQUIV,MED.   86         48         46          86         44         48          84         51         51
 H M
 E E %-ILE RANK       72          9          7          69          4          7          66          4          4
 V N
 E T % > NATL,MED.    74          6         16          70          6         18          67          5         11

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 8,14,35,
     DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %        44,
   D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %       NON     GRAD.   6 OR MORE
   A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A  1588  92.0   52.5     0.17      64.4     49.1    60.9     24.0    42.0       60.0    (116,145,159,179,193,195,
                                                                                           203,224)
 ---------------------------------------------------------------------------------------------------------------------
     34 CREATIVE ARTS            (09-12)                                                       NORTHWEST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:    ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
              GRADE:  9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD,EQUIV,MED.
   M
   E %-ILE RANK        62 84      22 22      27 22       57 73      17 14      20 90       57 61      29 33      22 33
   N
   T % > NATL,MED.     61 96      21 29      40 50       55 70      19 13       0 99       53 67      28 18      33 50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:16,44,47,
     DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %
   D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %       NON     GRAD.   6 OR MORE
   A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A   310  89.3   57.2     0.62     *****     ****    ****     38.0    50.0       38.0

 ---------------------------------------------------------------------------------------------------------------------
      6 HILLCREST                (09-12)                                                       NORTHWEST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:    ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
              GRADE:  9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD,EQUIV,MED.
   M
   E %-ILE RANK        69 66      24 10      24  8       70 60      17 19      22 10       64 68      37 22      29 22
   N
   T % > NATL,MED.     70 73       3 21       7 40       69 63      13 22       8 20       70 70      23 21      21 20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:13,39,44,
     DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %
   D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %       NON     GRAD.   6 OR MORE
   A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A  1738  93.1   15.2     0.13      67.2     66.4    83.3     22.0    58.0       84.0    ( 64)


 ---------------------------------------------------------------------------------------------------------------------
      7 THOMAS JEFFERSON         (09-12)                                                       NORTHWEST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:    ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
              GRADE:  9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD,EQUIV,MED.
   M
   E %-ILE RANK        64 63      22 18      32 17       64 54      20 19      28 32       58 53      37 27      29 27
   N
   T % > NATL,MED.     61 67      17 17      20 19       64 57      23 16      30 27       61 55      23 19      23 24

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:17,27,36,
     DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %        39,44,
   D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %       NON     GRAD.   6 OR MORE
   A SHIP                                      MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS; LOC #'S
   A  2035  94.7   35.0     0.13      48.1     17.9    16.7     19.0    54.0       67.0    ( 44, 55)
```

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-------------------------------------------------------------------------------------------------------------
    11 NORTH DALLAS             (09-12)                                            NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:   9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD.EQUIV.MED.
  M
  E %-ILE RANK      27 40      19  8      17 12       20 27      20  8      17 16       37 39      29 27      37 22
  N
  T % > NATL.MED.   23 39       5  4      10 12       12 35      13  8      16 20       44 30      19  8      26 14

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER.    %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 8,13,27,
    DAILY          NON    DAILY     ECON,   POST-HIGH SCHL    %        %         %        34,35,38,39,44.
  D MEMBER  ADA   WHITE   TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A  1357  88.8   85.5    0.23      35.8     9.5     9.8     40.0    37.0       62.0    ( 55, 58, 64)

-------------------------------------------------------------------------------------------------------------
    12 L. G. PINKSTON           (09-12)                                            NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:   9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD.EQUIV.MED.
  M
  E %-ILE RANK      17 36      15  5      15  6        5 38      15  7      17 12       37 33      29 22      37 22
  N
  T % > NATL.MED.    0 50       1  1       0  4        0  0       5  7      10  4        0 50      22  5      21  4

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER.    %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:17,39,44,
    DAILY          NON    DAILY     ECON,   POST-HIGH SCHL    %        %         %        46.
  D MEMBER  ADA   WHITE   TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A  2034  86.8   97.6    0.07      35.6    20.2    19.4     50.0    29.0       59.0    ( 44, 54, 64)

-------------------------------------------------------------------------------------------------------------
    35 TRANSPORTATION           (09-12)                                            NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:   9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD.EQUIV.MED.
  M
  E %-ILE RANK      22 38      19  6      22 [illegible]  22 15      17 10      22  1       44 49      37 33      37 11
  N
  T % > NATL.MED.   30  0       0  0      30  0       30  0       0  0      40  0       38  0      19  0      40  0

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER.    %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:16,44,47.
    DAILY          NON    DAILY     ECON,   POST-HIGH SCHL    %        %         %
  D MEMBER  ADA   WHITE   TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A   129  93.6   62.6    0.43     *****    ****    ****     43.0    29.0       33.0


-------------------------------------------------------------------------------------------------------------
    21 W. T. WHITE              (09-12)                                            NORTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:   9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
    SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

    GRD.EQUIV.MED.
  M
  E %-ILE RANK      67 69      22 10      32 46       66 66      17  8      30 51       58 70      37 22      44 44
  N
  T % > NATL.MED.   70 76      20  6      21 50       69 68      33 12      21 67       68 74      44 12      36 40

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
    AVER.    %     %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 8,13,39,
    DAILY          NON    DAILY     ECON,   POST-HIGH SCHL    %        %         %        44.
  D MEMBER  ADA   WHITE   TRANS.   STATUS     %       %      NON     GRAD.   6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A  2659  95.8    8.7    0.66      66.6    54.3    71.2     21.0    60.0       77.0    ( 54, 55, 64)
```

Northeast Subdistrict

Results: Generalizations that can be made from the Performance Profiles include:

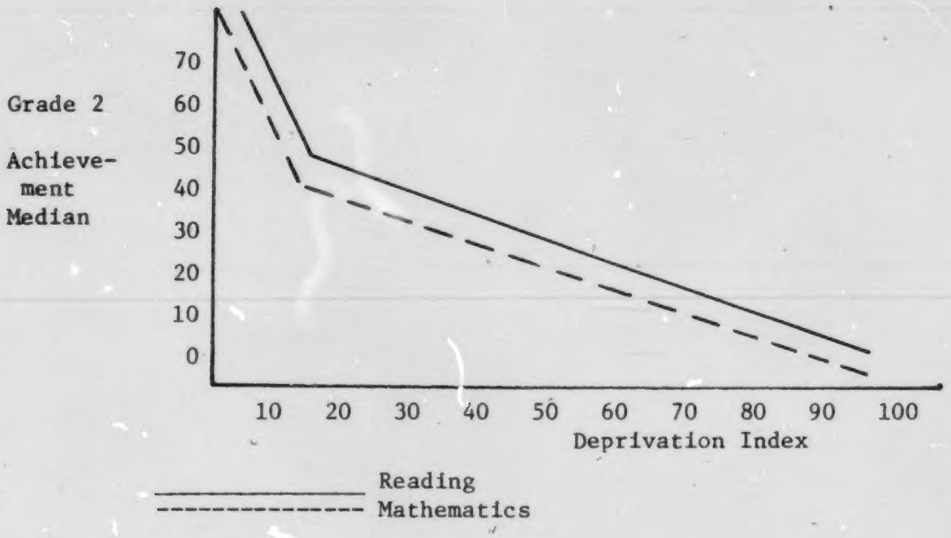
1. Student achievement in reading, language, and mathematics covered the entire spectrum of the norm distribution. For example, in Grade 2 there were 12 schools that had more than 20% of their students in the top large-city decile in reading. However, there were also seven schools that had more than 20% of their Grade 2 students in the lowest large-city decile in reading. This extreme diversity was not present equally in all grades (see table below).

Number and Percentage of Schools Having
More than 20% of Their Students
Achieving at the Scale Extremes
(Percentage based on total District)

	Lowest Decile						Highest Decile					
	Read		Lang		Math		Read		Lang		Math	
Grade	N	%	N	%	N	%	N	%	N	%	N	%
2	7	6	12	10	7	6	12	10	6	5	1	1
4	9	11	13	16	14	17	0	0	0	0	0	0
6	14	17	13	16	14	17	0	0	0	0	0	0
8	4	17	4	17	4	17	0	0	0	0	0	0
9	2	9	3	13	0	0	0	0	0	0	0	0
12	2	9	4	17	2	9	0	0	0	0	0	0

2. Student achievement in language, mathematics, and reading was closely related to the various socioeconomic variables reported. For example, it was generally true that the higher the deprivation index, the lower the measured achievement. The following figure illustrates the relationship between deprivation index and achievement. This relationship also holds for percentile parental educational level and achievement (see graph below).

3. Student achievement was closely related to percent minority, percent mobility, and percent attendance. All of these variables were in turn related to the socioeconomic variables.



4. The District's emphasis on reading appears to be achieving results. In almost all schools median reading performance exceeded median language and mathematics performance. This fact generally held for all grade levels in all attendance areas. The exception to this occurred at the ninth and twelfth grade levels in low-achieving schools. At those levels the District does not administer functional-level tests. Therefore, it is hypothesized that inability to read inhibits performance on the language and reading tests much more than on the mathematics tests.

5. Median Anglo performance was generally above norm in all grades; median minority performance was below norm in all grades. Median achievement in reading excelled that in mathematics in all ethnic groups and grades except for minority students in grades 9 and 12. Across ethnic groups median achievement was highest in grade 2, relative to grade norms.

6. Achievement data are summarized by attendance area in the following tables. Each of the tables specifies the percent of students by ethnic background from each of the attendance areas who scored at or above the 50th percentile on large-city norms. For Grades 2, 4, 6, and 8 the Iowa Tests of Basic Skills were used. The subtests reported are: vocabulary (V), word analysis or work study (W), reading (R), language (L), and mathematics (M). For Grades 9 and 12 the Iowa Tests of Educational Development were used. The Subtests reported are: reading (R), language (L), mathematics (M), social studies (SS), science (S), and use of sources (U). In addition, the feeder schools comprising each attendance area and their deprivation indices are also reported.

Bryan Adams Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo						Black						MexAm					
Grade	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	74	74	74	66	64		71	71	71	57	36		65	53	80	56	42	
4	67	59	57	53	48		11	14	13	8	8		31	29	33	34	29	
6	61	56	53	49	45		6	9	12	4	4		23	17	23	23	18	
8	58	57	51	57	47		3	5	6	5	2		22	29	29	30	23	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	54	53	49	47	44	42	0	9	20	9	0	3	23	36	32	21	21	21
12	60	54	54	50	62	64	6	3	6	6	9	6	50	55	33	32	61	61

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Casa View	12		Lakewood	31	31
S. S. Conner	9	56	Martha T. Reilly	26	26
Charles A. Gill	6		Reinhardt	31	31
Victor H. Hexter	1		Alex Sanger	34	34
Edwin J. Kiest	8		George W. Truett	15	56

Middle School	Index
W. H. Gaston	42
Robert T. Hill	26

In the Bryan Adams High School Attendance Area median Anglo performance was generally above norm in all grades; median minority performance was generally above norm in grade 2 and well below norm in the remaining grades. For each ethnic group achievement in reading was higher than in mathematics in grades 2-8; in grade 2 median minority achievement in mathematics severely trailed that in other subtests. Among Anglo students achievement in grade 2 was somewhat higher than that in the remaining grades; among minority students achievement in grade 2 was very much higher than that in the remaining grades, relative to grade norms.

Madison Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

Grade	Anglo						Black						MexAm					
	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	76	73	74	65	68		21	22	28	19	26		31	30	33	31	30	
4	64	58	55	51	45		8	12	10	8	7		27	31	33	29	24	
6	59	53	50	49	44		5	7	10	3	4		17	15	20	20	13	
8	55	54	50	53	45		3	5	6	5	3		22	30	28	31	26	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	*	*	*	*	*	*	1	5	22	6	1	2	*	*	*	*	*	*
12	*	*	*	*	*	*	3	9	8	6	6	11	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

* No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Bayles	29	29	Fannie C. Harris	76	
John Henry Brown	92		Thomas C. Hassell	56	
City Park	95		Lakewood	31	31
Colonial	89		Reinhardt	31	31
S. S. Conner	9	56	Edna Rowe	19	63
David Crockett	86	86	Alex Sanger	34	34
Paul L. Dunbar	93		George W. Truett	15	56
Julia C. Frazier	89		Phyllis Wheatley	64	

Middle School	Index
W. H. Gaston	42
Robert T. Hill	26
John B. Hood	40

In the Madison High School Attendance Area median Anglo performance was generally above norm in grades 2-8; median minority performance was well below norm in all grades. For each ethnic group median achievement in reading was higher than that in mathematics in grades 2-8; for minority students this was not true in grades 9 and 12. Within each ethnic group median achievement in the lower grades was somewhat higher than that in the upper grades, relative to grade norms.

Skyline Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

Grade	Anglo					Black					MexAm				
	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	75	73	76	61	68	48	38	43	38	41	44	40	48	36	32
4	64	60	53	52	41	7	14	10	9	8	25	32	36	26	26
6	62	56	53	54	48	6	8	12	5	7	26	31	33	38	26
8	54	52	51	52	45	3	4	6	6	2	17	20	22	22	20

Grade	Anglo						Black						MexAm					
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	46	51	47	40	35	49	15	26	30	18	9	18	35	35	50	40	19	38
12	65	52	56	57	64	71	24	27	19	23	22	32	31	26	19	33	28	33

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Bayles	29	29	Alex Sanger	34	34
S. S. Conner	9	56	Ascher Silberstein	31	31
Edna Rowe	19	63	Urban Park	12	

Middle School	Index
W. H. Gaston	42
John B. Hood	40
J. L. Long	36

In the Skyline High School Attendance Area median Anglo performance was generally above norm in all grades; median minority performance was below norm in all grades. For each ethnic group median achievement in reading excelled that in mathematics in all grades except grade 9. Within each ethnic group median achievement was highest in grade 2; for Anglo students it was lowest in grade 9, relative to grade norms.

Woodrow Wilson Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	61	61	59	52	56	23	26	34	23	31	22	26	30	23	24
4	53	51	51	44	39	11	13	13	8	6	21	21	20	21	17
6	47	47	44	39	31	5	6	11	4	6	15	16	17	15	10
8	54	56	53	55	49	5	5	9	11	3	13	17	19	20	16

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	49	43	46	47	38	41	2	8	21	15	2	4	12	15	24	13	8	8
12	47	44	42	38	41	50	2	0	2	0	4	4	17	19	16	14	19	22

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
David Crockett	86	86	William Lipscomb	67	67
Stonewall Jackson	23	23	Mount Auburn	67	67
Lakewood	31	31	Oran M. Roberts	91	91
Robert E. Lee	56	56			

Middle School	Index
J. L. Long	36

In the Wilson High School Attendance Area median Anglo performance was generally above norm in grades 2, 4, and 8; median minority performance was well below norm in all grades. For each ethnic group median achievement in reading excelled that in mathematics in grades 2-8; this was not true for minority students in grades 9 and 12. Within each ethnic group median achievement was highest in grade 2, relative to grade norms.

Northeast Subdistrict Summary
Anglo

	R	L	M	SS	S
Grade 2 (Percent of population = 49%)					
Percentile rank of median student	79	64	55		
Range of median percentiles over schools	20-94	20-82	28-73		
Grade equivalent of median student	28	22	20		
Gain in median GE within grade 1974-76	4	2	0		
Grade 4 (Percent of population = 48%)					
Percentile rank of median student	60	51	39		
Range of median percentiles over schools	24-79	20-72	12-62		
Grade equivalent of median student	40	38	36		
Gain in median GE within grade 1974-76	0	- 2	- 4		
Gain in median GE across grades 1974-76	16	18	16		
Expected gain in median GE	20	19	20		
Grade 6 (Percent of population = 49%)					
Percentile rank of median student	55	50	42		
Range of median percentiles over schools	7-72	6-65	5-64		
Grade equivalent of median student	57	55	54		
Gain in median GE within grade 1974-76	- 3	- 3	- 3		
Gain in median GE across grades 1974-76	17	15	14		
Expected gain in median GE	19	18	18		
Grade 8 (Percent of population = 59%)					
Percentile rank of median student	54	50	44		
Range of median percentiles over schools	47-59	48-53	40-48		
Grade equivalent of median student	75	74	73		
Gain in median GE within grade 1974-76	- 3	- 1	- 3		
Gain in median GE across grades 1974-76	15	16	16		
Expected gain in median GE	21	20	19		
Grade 9 (Percent of population = 53%)					
Percentile rank of median student	51	50	44	48	40
Range of median percentiles over schools	46-55	39-64	33-44	38-53	33-44
Grade 12 (Percent of population = 70%)					
Percentile rank of median student	56	53	53	52	57
Range of median percentiles over schools	46-60	43-54	44-61	40-55	44-60

Northeast Subdistrict Summary
Black

	R	L	M	SS	S
Grade 2 (Percent of population = 37%)					
Percentile rank of median student	26	24	30		
Range of median percentiles over schools	12-37	9-35	15-40		
Grade equivalent of median student	15	14	15		
Gain in median GE within grade 1974-76	1	1	2		
Grade 4 (Percent of population = 38%)					
Percentile rank of median student	16	10	5		
Range of median percentiles over schools	10-24	8-20	2-16		
Grade equivalent of median student	25	26	25		
Gain in median GE within grade 1974-76	1	0	1		
Gain in median GE across grades 1974-76	11	13	12		
Expected gain in median GE	12	12	18		
Grade 6 (Percent of population = 35%)					
Percentile rank of median student	8	5	2		
Range of median percentiles over schools	5-15	2-15	1- 5		
Grade equivalent of median student	37	35	36		
Gain in median GE within grade 1974-76	4	1	1		
Gain in median GE across grades 1974-76	13	9	12		
Expected gain in median GE	16	12	15		
Grade 8 (Percent of population = 29%)					
Percentile rank of median student	9	5	5		
Range of median percentiles over schools	9-12	3-12	4- 6		
Grade equivalent of median student	48	46	52		
Gain in median GE within grade 1974-76	- 3	- 2	- 2		
Gain in median GE across grades 1974-76	15	12	17		
Expected gain in median GE	10	11	9		
Grade 9 (Percent of population = 35%)					
Percentile rank of median student	17	20	29	24	16
Range of median percentiles over schools	15-24	15-33	22-37	19-28	16-25
Grade 12 (Percent of population = 21%)					
Percentile rank of median student	15	15	22	19	14
Range of median percentiles over schools	5-30	6-26	11-27	7-26	7-21

Northeast Subdistrict Summary
Mexican-American

	R	L	M	SS	S
Grade 2 (Percent of population = 12%)					
Percentile rank of median student	26	24	35		
Range of median percentiles over schools	3-81	11-70	18-55		
Grade equivalent of median student	15	14	16		
Gain in median GE within grade 1974-76	0	0	1		
Grade 4 (Percent of population = 12%)					
Percentile rank of median student	24	24	13		
Range of median percentiles over schools	12-48	6-59	6-37		
Grade equivalent of median student	28	30	29		
Gain in median GE within grade 1974-76	0	1	1		
Gain in median GE across grades 1974-76	13	16	14		
Expected gain in median GE	13	18	18		
Grade 6 (Percent of population = 13%)					
Percentile rank of median student	15	16	8		
Range of median percentiles over schools	3-30	4-40	2-25		
Grade equivalent of median student	41	41	42		
Gain in median GE within grade 1974-76	- 3	- 2	- 5		
Gain in median GE across grades 1974-76	13	12	14		
Expected gain in median GE	17	13	15		
Grade 8 (Percent of population = 10%)					
Percentile rank of median student	23	26	21		
Range of median percentiles over schools	18-40	19-41	12-30		
Grade equivalent of median student	59	60	62		
Gain in median GE within grade 1974-76	- 5	- 1	- 5		
Gain in median GE across grades 1974-76	15	17	15		
Expected gain in median GE	13	14	14		
Grade 9 (Percent of population = 10%)					
Percentile rank of median student	22	20	37	28	20
Range of median percentiles over schools	19-27	17-36	29-48	24-48	18-30
Grade 12 (Percent of population = 6%)					
Percentile rank of median student	33	34	33	33	29
Range of median percentiles over schools	15-50	24-53	27-39	13-40	11-50

Special Programs in DISD Schools

1. Targeted Achievement in Reading Program (TARP)
2. Targeted Achievement in Mathematics Program (TAMP)
3. Multicultural Social Studies Program (MSSP)
4. Community Schools Program
5. Community Involvement Program (CIP)
6. Bilingual Education Component (BEC)
7. Programmed Tutorial Reading Project (PTRP)
8. Reading is Fundamental (RIF)
9. Partners in Reading
10. Advocate/Packet Program
11. Teacher Training Through the Development and Use of Teaching/Learning Packets
12. Emergency School Aid Act (ESAA) Pilot Project
13. Emergency School Aid Act (ESAA) Basic
14. Emergency School Aid Act (ESAA) Special I
15. Special I/Bilingual
16. Emergency School Aid Act (ESAA) Special II
17. Dallas Independent School District's Secondary Reading Program
18. Conceptually Oriented Musicianship Program (COMP)
19. Conceptual Approach to Teaching Science (CATS)
20. Management System
21. Home Education Learning Program (H.E.L.P.)
22. Success Through Strings (STS)
23. Learning Through Piano (LTP)
24. Teaching Art Concepts and Skills (TACS)
25. Fundamental Levels in Physical Skills (FLIPS)
26. Assessment and Accountability Model for Elementary School Guidance
27. Job Placement, Counseling and Follow-up Center
28. K-12 Career Education Infusion
29. Challenging the Gifted Child Project
30. Career Development Program for the Hearing Impaired K-12
31. Bilingual Computer Assisted Instruction
32. Supplementary Spanish Easy Reading Materials Project (SSERM)
33. Parent Education Program (PEP)
34. Creative Arts Curriculum
35. Nutrition Education Program
36. Comprehensive Health Education or Health Education - Skills for Living
37. Environmental Education Program
38. Alternative Science Project
39. Career Oriented Pretechnical Physics Mini-courses
40. Bilingual Education Program (BEP)
41. Indo-Chinese Component
42. Campus Level Planning (CLP)
43. Highlighting Early Learning Problems (HELP)
44. Plan A
45. Project Zero Reject
46. Career Development Centers (CDC)
47. Magnet Schools
48. Academies
49. Vanguard Schools
50. Lincoln High School Renewal Project (LHSRP)
51. Instructional Personnel (Resource Teacher/Instructional Leaders)

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    113 JOHN HENRY BROWN          (KN=03)                                                    NORTHEAST SUBDISTRICT

           SUBTEST:          R E A D I N G                      L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK      MEXAM
            GRADE:  2           2           2           2           2           2           2           2          2
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.               16                                  14                                  16
  M
  E %-ILE RANK                   33                                  24                                  35
  N
  T % > NATL.MED.                31                                  22                                  34

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %        4, 5, 8, 9,18,24,25,43,
  D MEMBER   ADA   WHITE     TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE    44,51.
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS.EXPER.
  T                                                                                      FEEDER SCHOOLS: LOC #'S
  A   443  91.0  100.0     0.26      43.8     ****    ****     43.0    48.0       78.0

  ----------------------------------------------------------------------------------------------------------------------
    125 CASA VIEW                 (KN=03)                                                    NORTHEAST SUBDISTRICT

           SUBTEST:          R E A D I N G                      L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK      MEXAM
            GRADE:  2           2           2           2           2           2           2           2          2
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   17                     20          17                      16          18                     12
  M
  E %-ILE RANK       41                     58          46                      35          46                     15
  N
  T % > NATL.MED.    46                     75          46                      38          41                     25

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 9,11,23,
      DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %        25,41,43,44.
  D MEMBER   ADA   WHITE     TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS.EXPER.
  T                                                                                      FEEDER SCHOOLS: LOC #'S
  A   348  83.2   17.1     0.12      56.0     ****    ****     26.0    44.0       69.0


  ----------------------------------------------------------------------------------------------------------------------
    127 CITY PARK                 (KN=03)                                                    NORTHEAST SUBDISTRICT

           SUBTEST:          R E A D I N G                      L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK      MEXAM
            GRADE:  2           2           2           2           2           2           2           2          2
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   42          13          12          31          14          10          24          14         12
  M
  E %-ILE RANK       98          15          12          83          24           9          73          25         15
  N
  T % > NATL.MED.    99          11           0          99           4           6          99          30         11

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %        4, 5, 7, 8, 9,19,24,25,
  D MEMBER   ADA   WHITE     TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE    43,44,51.
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS.EXPER.
  T                                                                                      FEEDER SCHOOLS: LOC #'S
  A   230  85.3   85.6     0.63      40.8     ****    ****     32.0    40.0       74.0


  ----------------------------------------------------------------------------------------------------------------------
    128 COLONIAL                  (KN=03)                                                    NORTHEAST SUBDISTRICT

           SUBTEST:          R E A D I N G                      L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK      MEXAM
            GRADE:  2           2           2           2           2           2           2           2          2
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.               14                                  13                                  14
  M
  E %-ILE RANK                   20                                  20                                  25
  N
  T % > NATL.MED.                20                                  12                                  22

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %        5, 8, 9,24,25,43,44,51.
  D MEMBER   ADA   WHITE     TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE
  A  SHIP                                      MOM     DAD    WHITE   DEGREE  YRS.EXPER.
  T                                                                                      FEEDER SCHOOLS: LOC #'S
  A   375  86.9   99.5     0.31      37.3     ****    ****     42.0 [illegible]   42.0
```

```
            SUBTEST:        R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK    MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK    MEXAM
              GRADE:  2         2         2          2        2         2          2         2         2
    SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD,EQUIV,MED.             16                            16                             16
H M
I E %=ILE RANK                 33                            35                             35
E N
V T % > NATL,MED.              41                            32                             32
E
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %    % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY        NON     DAILY    ECON,  POST-HIGH SCHL   %       %        %         5, 6, 9,18,19,20,21,22,
C D MEMBER  ADA  WHITE    TRANS.  STATUS     %     %      NON   GRAD.  6 OR MORE   23,24,25,33,43,44,51.
H A SHIP                                    MOM   DAD    WHITE  DEGREE  YRS,EXPER.
O T                                                                                 FEEDER SCHOOLS: LOC #'S
O A   416  90,2  100,0    0,27     49,6    ****   ****    33,0   17,0      33,0
L
--------------------------------------------------------------------------------------------------------------
    146 JULIA C, FRAZIER          (KN=03)                                                NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK    MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK    MEXAM
              GRADE:  2         2         2          2        2         2          2         2         2
    SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.             15        14                  14         13                  16         6
  M
  E %=ILE RANK                 26        20                  24         20                  35         1
  N
  T % > NATL,MED.              31         0                  26          0                  26         0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %    % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY        NON     DAILY    ECON,  POST-HIGH SCHL   %       %        %         5, 7, 9,10,24,25,43,44,
  D MEMBER  ADA  WHITE    TRANS.  STATUS     %     %      NON   GRAD.  6 OR MORE   51.
  A SHIP                                    MOM   DAD    WHITE  DEGREE  YRS,EXPER.
  T                                                                                 FEEDER SCHOOLS: LOC #'S
  A   408  87,6   99,8    0,25     44,9    ****   ****    41,0   23,0      59,0

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    147 CHARLES A, GILL           (KN=03)                                                NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK    MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK    MEXAM
              GRADE:  2         2         2          2        2         2          2         2         2
    SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.   31                  31          26                 18         22                  20
  M
  E %=ILE RANK       85                  85          75                 46         64                  55
  N
  T % > NATL,MED.    82                  60          68                 40         75                  60

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %    % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,11,23,
     DAILY        NON     DAILY    ECON,  POST-HIGH SCHL   %       %        %        25,41,43,44,
  D MEMBER  ADA  WHITE    TRANS.  STATUS     %     %      NON   GRAD.  6 OR MORE
  A SHIP                                    MOM   DAD    WHITE  DEGREE  YRS,EXPER.
  T                                                                                 FEEDER SCHOOLS: LOC #'S
  A   263  84,9   11,0    0,05     62,1    ****   ****    27,0   36,0      64,0


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    151 FANNIE C, HARRIS          (KN=03)                                                NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK    MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK    MEXAM
              GRADE:  2         2         2          2        2         2          2         2         2
    SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED.             15                            13                             14
  M
  E %=ILE RANK                 26                            20                             25
  N
  T % > NATL,MED.              29                            23                             21

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %    % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY        NON     DAILY    ECON,  POST-HIGH SCHL   %       %        %         5, 8, 9,10,18,24,25,42,
  D MEMBER  ADA  WHITE    TRANS.  STATUS     %     %      NON   GRAD.  6 OR MORE   43,44,51.
  A SHIP                                    MOM   DAD    WHITE  DEGREE  YRS,EXPER.
  T                                                                                 FEEDER SCHOOLS: LOC #'S
  A   173  93,0   99,5    0,34     41,9    ****   ****    44,0   44,0      67,0
```

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   154 THOMAS C. HASSELL         (KN=03)                                         NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
             GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
A
C   GRD.EQUIV.MED.              14                               10                               12
H M
I E %-ILE RANK                  20                                9                               15
E N
V T % > NATL.MED.               26                                6                               10
E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
S    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         4, 5, 9,24,25,43,44,51,
C  D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
H  A SHIP                                      MOM     DAD   WHITE   DEGREE  YRS.EXPER.
O  T                                                                                        FEEDER SCHOOLS: LOC #'S
O  A    218  88.6  100.0     0.19      40.8    ****    ****    45.0    27.0      55.0
L
-----------------------------------------------------------------------------------------------------
   153 VICTOR M. HEXTER          (KN=03)                                         NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
             GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   31                    17         24                    10         24                    16
  M
  E %-ILE RANK       86                    41         80                     9         73                    35
  N
  T % > NATL.MED.    88                    50         67                    50         94                    50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
     DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         33,43,44,
   D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
   A SHIP                                      MOM     DAD   WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A    182  83.3    9.6     0.02      64.5    ****    ****    36.0    36.0      73.0

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   166 EDWIN J. KIEST            (KN=03)                                         NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
             GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   29         27         21         24         22         22         20         17         15
  M
  E %-ILE RANK       81         76         62         75         64         64         55         40         30
  N
  T % > NATL.MED.    73         99         80         64         67         60         54         33          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
     DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         41,43,44,
   D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
   A SHIP                                      MOM     DAD   WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A    324  84.5   16.0     0.10      56.9    ****    ****    25.0    33.0     100.0


-----------------------------------------------------------------------------------------------------
   222 URBAN PARK                (KN=03)                                         NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
             GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   21                    15         16                    13         18                    13
  M
  E %-ILE RANK       62                    26         35                    20         46                    20
  N
  T % > NATL.MED.    56                    22         37                    22         44                    22

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,11,23,
     DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         25,42,43,44,
   D MEMBER  ADA  WHITE     TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
   A SHIP                                      MOM     DAD   WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A    222  81.2   17.5     0.33      53.0    ****    ****    18.0    55.0      45.0
```

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--------------------------------------------------------------------------------------------------------------
    227 PHYLLIS WHEATLEY           (KN-03)                                            NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
          ETHNICITY:   ANGLO    BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:   2          2          2           2          2          2           2          2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 A
 C    GRD,EQUIV,MED.             15         15                      11         13                     15         14
 - M
 I E  %-ILE RANK                 26         26                      13         20                     30         25
 F N
 V T  % > NATL,MED.              27          0                      16          0                     32          0
 F
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
 S    DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %        %        %          5, 9,10,24,25,43,44,51,
 C  D MEMBER  ADA   WHITE    TRANS,   STATUS     %      %       NON     GRAD.  6 OR MORE
 H  A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 O  T                                                                                     FFEDER SCHOOLS: LOC #'S
 O  A    174  94,2   99,4    0,18     47,8     ****   ****     42,0    33,0      50,0

--------------------------------------------------------------------------------------------------------------
    108 BAYLES                     (KN-06)                                            NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:   2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

      GRD,EQUIV,MED.  31 48 64  17 24 33  12 24 66    26 46 63  14 25 32   9 30 64    23 41 58  18 26 34  12 24 71
   M
 I E  %-ILE RANK      85 79 72  41 14  5  12 14 74    75 71 65  24  8  2   7 24 66    69 62 56  46  6  1  15  4 82
   N
 V T  % > NATL,MED.   79 81 74  25 17  2   0  0 99    63 72 69  25 10  8   0 25 99    82 59 57  50 11  0  50  0 99

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,14,
 S    DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %        %        %          23,25,41,43,44,
 C  D MEMBER  ADA   WHITE    TRANS,   STATUS     %      %       NON     GRAD.  6 OR MORE
 H  A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 O  T                                                                                     FEEDER SCHOOLS: LOC #'S
 O  A    641  89,8   36,3    0,30     61,9     ****   ****     37,0    48,0      81,0     (154)

--------------------------------------------------------------------------------------------------------------
    129 S. S. CONNER               (KN-06)                                            NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:   2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

      GRD,EQUIV,MED.  29 42 56  30 24 36  25 44 39    26 38 58  22 26 32  22 38 34    20 38 57  21 22 35  16 38 36
   M
   E  %-ILE RANK      81 64 53  83 14  7  72 70 12    75 51 56  86 10  2  64 51  4    55 48 50  60  2  2  35 48  2
   N
   T  % > NATL,MED.   84 59 57  80  0  6  99 67 50    73 61 59  80  3 12  67 67 50    66 50 52  80  0  0  50 33 50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %        %        %          5, 9,14,23,24,25,43,44,
    D MEMBER  ADA   WHITE    TRANS,   STATUS     %      %       NON     GRAD.  6 OR MORE      51,
    A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
    T                                                                                     FEEDER SCHOOLS: LOC #'S
    A    535  88,5   30,4    0,26     67,5     ****   ****     32,0    51,0      81,0     (113)


--------------------------------------------------------------------------------------------------------------
    131 DAVID CROCKETT             (KN-06)                                            NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:   2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6     2  4  6    2  4  6    2  4  6
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

      GRD,EQUIV,MED.  14 33 36  16 25 36  14 26 31    13 34 35  10 20 30  14 29 34    20 29 40  16 28 34  16 30 36
   M
   E  %-ILE RANK      20 39  7  33 10  7  20 19  3    20 39  5  35  2  1  24 20  4    55 13  5  35 10  1  35 16  2
   N
   T  % > NATL.MED.   29 35 11  33 20  0  20 28  0    26 26 11  26 20  0  22 28  3    54 22 11  38  0  0  29 17  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %        %        %          5, 6, 8, 9,22,24,25,43,
    D MEMBER  ADA   WHITE    TRANS,   STATUS     %      %       NON     GRAD.  6 OR MORE     44,51,
    A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
    T                                                                                     FEEDER SCHOOLS: LOC #'S
    A    741  89,8   72,8    0,38     34,2     ****   ****     26,0    29,0      52,0
    162 STONEWALL JACKSON          (KN=06)                                                NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   30 39 54             17 22 73    29 39 59             16 36 70    22 34 51             14 38 50
  M
  E %-ILE RANK       83 57 48             41 10 45    80 54 58             35 45 76    64 31 32             25 48 29
  N
  T % > NATL.MED.    71 63 47             50 33 67    76 75 53             50 33 67    69 25 20              0 33 33

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %         %        %       30,41,43,44.
  D MEMBER   ADA   WHITE    TRANS.  STATUS     %       %      NON      GRAD.  6 OR MORE
  A  SHIP                                     MOM     DAD    WHITE    DEGREE  YRS.EXPER.
  T                                                                                    FEEDER SCHOOLS: LOC #'S
  A   210   91.3   37.4     0.08     64.5    ****    ****     7.0     43.0      39.0

  ---------------------------------------------------------------------------------------------------------------
    171 LAKEWOOD                   (KN=06)                                                NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   36 40 59     27 37   20 30 39    29 40 58     27 34   26 29 42    23 40 54     26 35   13 26 42
  M
  E %-ILE RANK       94 60 60     22  8   58 30 12    80 57 58     13  4   75 20 18    69 55 42      6  2   20  6  8
  N
  T % > NATL.MED.    85 59 57     10  2   99 24 13    81 62 57     14  9   99 24 23    77 54 43      6  0    0 24 13

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 8, 9,
     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %         %        %       14,23,25,41,43,44.
  D MEMBER   ADA   WHITE    TRANS.  STATUS     %       %      NON      GRAD.  6 OR MORE
  A  SHIP                                     MOM     DAD    WHITE    DEGREE  YRS.EXPER.
  T                                                                                    FEEDER SCHOOLS: LOC #'S
  A   721   92.1   32.0     0.12     71.9    ****    ****    29.0     56.0      68.0    (127,131,166)

  ---------------------------------------------------------------------------------------------------------------
    174 ROBERT E. LEE              (KN=06)                                                NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   25 39 65             19 30 38    24 44 62             22 30 42    23 34 62             18 29 40
  M
  E %-ILE RANK       72 57 72             54 30 10    70 66 63             64 24 18    69 31 64             46 13  5
  N
  T % > NATL.MED.    65 58 82             54 27 18    70 67 59             69 27 12    65 35 53             38 20 12

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %         %        %       5, 6, 8, 9,23,24,25,43,
  D MEMBER   ADA   WHITE    TRANS.  STATUS     %       %      NON      GRAD.  6 OR MORE    44,51.
  A  SHIP                                     MOM     DAD    WHITE    DEGREE  YRS.EXPER.
  T                                                                                    FEEDER SCHOOLS: LOC #'S
  A   349   94.2   57.2     0.26     45.3    ****    ****    65.0     18.0      5[illegible]


  ---------------------------------------------------------------------------------------------------------------
    177 WILLIAM LIPSCOMB           (KN=06)                                                NORTHEAST SUBDISTRICT

            SUBTEST:         R E A D I N G                     L A N G U A G E                  M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.   17 28 37  32 25 20  14 28 39    17 29 40  13 21 23  11 28 42    16 28 40  16 28 37  12 28 42
  M
  E %-ILE RANK       41 24  8  86 16  1  20 24 12    40 20 14  20  2  1  13 16 18    35 10  5  35 10  3  15 10  8
  N
  T % > NATL.MED.    50 36 25  99 50  0  31 18 21    29 30 20  20  0  0  11  4 22    34 30 11  20  0  0  14 12 17

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %         %        %       5, 6, 8, 9,23,24,25,36,
  D MEMBER   ADA   WHITE    TRANS.  STATUS     %       %      NON      GRAD.  6 OR MORE    41,43,44,51.
  A  SHIP                                     MOM     DAD    WHITE    DEGREE  YRS.EXPER.
  T                                                                                    FEEDER SCHOOLS: LOC #'S
  A   786   86.1   54.6     0.31     40.7    ****    ****    39.0     32.0      68.0
```

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----------------------------------------------------------------------------------------------------------------
   188 MOUNT AUBURN              (KN-06)                                                 NORTHEAST SUBDISTRICT

         SUBTEST:           R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:    ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
           GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   14 37 51  12 22 41   7 23 46    16 38 47  11 25 40  13 24 43    14 35 44  12 22 36  16 29 42
 M
 E %-ILE RANK       20 51 39  12 10 15   3 12 26    35 51 32  13  8 14  20  6 21    25 35 12  15  2  2  35 13  8
 N
 T % > NATL.MED.    41 54 45  20  8 10  21 13 19    33 54 34  10  4 23  20 17 25    33 23 21  20  8 16  23 10  5

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %          5, 6, 8, 9,24,25,32,43,
 D MEMBER   ADA   WHITE     TRANS.  STATUS     %      %      NON     GRAD.  6 OR MORE     44,51.
 A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   606  89.7   70.5    0.21      42.9     ****   ****     26.0    43.0       57.0

----------------------------------------------------------------------------------------------------------------
   198 MARTHA TURNER REILLY      (KN-06)                                                 NORTHEAST SUBDISTRICT

         SUBTEST:           R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:    ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
           GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   27 42 63     27 40  21 25 47    22 41 62     28 36  13 26 48    21 40 58     26 34  20 30 49
 M
 E %-ILE RANK       76 70 72     22 14  62 16 28    64 59 63     16  7  20 10 35    60 55 53      6  1  55 16 25
 N
 T % > NATL.MED.    72 65 71     19 13  99 14 21    61 59 64     21 13  50 17 36    64 53 52      9  2  67 33 36

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,14,23,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %          25,43,44,
 D MEMBER   ADA   WHITE     TRANS.  STATUS     %      %      NON     GRAD.  6 OR MORE
 A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A  1157  91.1   33.3    0.13      63.7     ****   ****     22.0    40.0       84.0     (153,201)

----------------------------------------------------------------------------------------------------------------
   199 REINHARDT                 (KN-06)                                                 NORTHEAST SUBDISTRICT

         SUBTEST:           R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:    ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
           GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   28 39 57  35 24 33  29 33 47    24 39 54  39 26 34  24 41 40    22 37 55  16 24 34  20 35 46
 M
 E %-ILE RANK       79 57 55  91 14  5  81 39 28    70 54 50  94 10  4  70 59 14    64 43 45  35  4  1  55 35 16
 N
 T % > NATL.MED.    73 56 53  99  8  5  73 50 25    73 55 51  99  7  5  73 55 20    67 48 43   0  4  2  55 42 17

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 9,14,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %          23,25,41,43,44,
 D MEMBER   ADA   WHITE     TRANS.  STATUS     %      %      NON     GRAD.  6 OR MORE
 A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A  1055  89.4   35.2    0.14      61.3     ****   ****     33.0    53.0       83.0     (128,147)


----------------------------------------------------------------------------------------------------------------
   202 ORAN M. ROBERTS           (KN-06)                                                 NORTHEAST SUBDISTRICT

         SUBTEST:           R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:    ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
           GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    7 17 29  14 27 37  14 27 40     9 20 36  14 29 35  14 27 36     8 27 38  17 26 38  16 28 39
 M
 E %-ILE RANK        3  3  2  20 22  8  20 22 14     7  2  7  24 20  5  24 13  7     3  8  3  40  6  3  35 10  4
 N
 T % > NATL.MED.    50  0  0  37 17  7  43 14 14    50  0  0  28 15  9  24 18  5    50  0  0  33  6  5  40 14  5

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %          5, 8, 9,22,24,25,36,42,
 D MEMBER   ADA   WHITE     TRANS.  STATUS     %      %      NON     GRAD.  6 OR MORE     43,44,51.
 A  SHIP                                      MOM    DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   560  92.6   96.3    0.28      39.4     ****   ****     31.0    46.0       46.0
```

```
  ------------------------------------------------------------------------------------------------
    232 EDNA ROWE                 (KN-06)                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK     MEXAM       ANGLO     BLACK     MEXAM      ANGLO      BLACK     MEXAM
              GRADE:   2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.     26 35 56  21 24 34     43 46   22 35 51  17 25 32     37 50   20 34 54  17 25 36     30 49
  M
  E %-ILE RANK         74 48 55  62 14  5     67 26   64 42 42  40  8  2     48 40   55 31 42  40  5  2     16 25
  N
  T % > NATL.MED.      72 49 54  60  9  7     56 31   57 45 46  40  5  6     44 38   67 30 48   0  4  4     33 25

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %          5, 9,14,23,24,25,41,43,
  D MEMBER   ADA   WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE     44,51.
  A  SHIP                                        MOM      DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                            FEEDER SCHOOLS: LOC #'S
  A  1021  90.9   42.1    0.21      50.1      ****     ****      35.0    40.0       76.0      (146,222)

  ------------------------------------------------------------------------------------------------
    206 ALEX SANGER               (KN-06)                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK     MEXAM       ANGLO     BLACK     MEXAM      ANGLO      BLACK     MEXAM
              GRADE:   2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.     33 42 54  24 25 41  19 27 42   29 40 54  11 27 39  17 34 37   22 36 53  18 26 40  15 36 41
  M
  E %-ILE RANK         88 64 50  70 16 15  54 22 17   80 57 48  13 13 12  40 39  8   64 39 39  46  6  5  30 39  6
  N
  T % > NATL.MED.      88 63 50  99 22 11  75 20 14   78 53 48   0 18 17  50 30 14   71 41 45   0 14 11  50 30  7

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,14,
      DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %          23,25,43,44,51.
  D MEMBER   ADA   WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
  A  SHIP                                        MOM      DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                            FEEDER SCHOOLS: LOC #'S
  A   936  89.8   41.2    0.22      58.7      ****     ****      34.0    44.0       92.0      (125,151,227)

  ------------------------------------------------------------------------------------------------
    209 ASCHER SILBERSTEIN        (KN-06)                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK     MEXAM       ANGLO     BLACK     MEXAM      ANGLO      BLACK     MEXAM
              GRADE:   2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.     25 34 49  16 28 40  17 17 32   16 30 53  16 27 40  18 15 36   20 33 51  16 30 40  14 32 44
  M
  E %-ILE RANK         72 42 33  33 24 14  41  3  4   35 24 46  35 13 14  46  1  7   55 27 32  35 16  5  25 23 12
  N
  T % > NATL.MED.      63 47 43  32 25 26  25  0 40   47 30 50  32 11 21  25  0 40   59 30 33  42 15  2   0  0 40

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
      DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %          25,43,44,
  D MEMBER   ADA   WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
  A  SHIP                                        MOM      DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                            FEEDER SCHOOLS: LOC #'S
  A   419  87.4   47.6    0.26      48.4      ****     ****      29.0    59.0       65.0


  ------------------------------------------------------------------------------------------------
    218 GEORGE W. TRUETT          (KN-06)                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK     MEXAM       ANGLO     BLACK     MEXAM      ANGLO      BLACK     MEXAM
              GRADE:   2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
    SCORE TYPE
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.     26 37 50  14 25 35  21 27 34   20 37 50  16 25 32  17 34 38   19 36 50  13 24 35  10 31 47
  M
  E %-ILE RANK         74 51 36  20 16  6  62 22  5   56 51 40  35  8  2  40 39 10   50 39 29  20  4  2   1 19 19
  N
  T % > NATL.MED.      64 52 39  25 13 14  67 17  0   55 51 37  25 11 13  50 33  0   54 43 36   0  7  5  33 17 20

  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
      DAILY          NON     DAILY     ECON,   POST-HIGH SCHL     %        %         %          5, 9,14,23,24,25,41,43,
  D MEMBER   ADA   WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE     44,51.
  A  SHIP                                        MOM      DAD    WHITE   DEGREE   YRS.EXPER.
  T                                                                                            FEEDER SCHOOLS: LOC #'S
  A   875  89.5   31.2    0.23      60.2      ****     ****      37.0    53.0       71.0      (113)
```

```
     48 W. H. GASTON              (07-08)                                              NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
              GRADE:  8          8          8           8         8          8           8         8          8
    SCORE TYPE
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
 A
 C    GRD,EQUIV,MED,   74        48         60          74        42         59          72        50         63
 H M
 I E %-ILE RANK        52         9         25          50         3         24          42         4         23
 E N
 V T % > NATL,MED,     53         5         20          52         5         27          45         1         20
 E
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
     AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 8,14,36,
 S   DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %        %        %         44,
 C D MEMBER  ADA  WHITE   TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
 H A SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
 O T                                                                                  FEEDER SCHOOLS: LOC #'S
 O A 1489  91,6   44,5    0,12     56,2     31,1    38,4    33,0    38,0      59,0    (108,129,171,199,206,218)
 L
-----------------------------------------------------------------------------------------------------------------
```

```
     50 ROBERT T. HILL            (07-08)                                              NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
              GRADE:  8          8          8           8         8          8           8         8          8
    SCORE TYPE
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
 A
 C    GRD,EQUIV,MED,   77        48         68          72        46         67          75        52         66
 H M
 I E %-ILE RANK        59         9         39          50         5         39          48         5         30
 E N
 V T % > NATL,MED,     62         6         44          50         8         31          49         4         29
 E
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
     AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:14,44,
 S   DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %        %        %
 C D MEMBER  ADA  WHITE   TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
 H A SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
 O T                                                                                  FEEDER SCHOOLS: LOC #'S
 O A 1057  93,7   35,0    0,13     58,7     29,0    38,2    33,0    63,0      65,0    (198,199,206)
 L
-----------------------------------------------------------------------------------------------------------------
```

```
     53 J. L. LONG                (07-08)                                              NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
              GRADE:  8          8          8           8         8          8           8         8          8
    SCORE TYPE
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -

      GRD,EQUIV,MED,   76        51         55          75        52         56          74        53         57
   M
   E %-ILE RANK        56        12         18          53        12         19          46         6         12
   N
   T % > NATL,MED,     56         5         17          53         9         19          49         3         16

 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
     AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 8,14,44,
     DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %        %        %
   D MEMBER  ADA  WHITE   TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
   A SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
   T                                                                                  FEEDER SCHOOLS: LOC #'S
   A 1150  91,8   45,8    0,16     45,3     22,6    32,2    25,0    38,0      52,0    (108,131,162,171,174,177,
                                                                                       188,202,206)

-----------------------------------------------------------------------------------------------------------------
```

```
      1 BRYAN ADAMS               (09-12)                                              NORTHEAST SUBDISTRICT

            SUBTEST:        R E A D I N G                    L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
              GRADE:  9 12       9 12       9 12        9 12      9 12       9 12        9 12      9 12       9 12
    SCORE TYPE
 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -

      GRD,EQUIV,MED,
   M
   E %-ILE RANK        55 54     19  7      27 49       52 54     15  8      28 53       44 53     22 16      37 39
   N
   T % > NATL,MED,     54 60      0  6      23 50       53 54      9  3      36 55       49 54     20  6      32 33

 . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . - . -
     AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:13,36,39,
     DAILY         NON    DAILY     ECON,  POST-HIGH SCHL    %        %        %         44,
   D MEMBER  ADA  WHITE   TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
   A SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
   T                                                                                  FEEDER SCHOOLS: LOC #'S
   A 3428  94,0   11,5    0,06     66,1     57,0    71,9    19,0    54,0      79,0    ( 48, 50)
```

```
     33 BUSINESS MANAGEMENT       (09-12)                                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12         9 12       9 12       9 12         9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.
   M
   E %-ILE RANK         43 62      17 30      22 52        64 51      20 15      36  5        29 27      29 11      29 39
   N
   T % > NATL.MED.      50 60       9  8      21 99        63 60      21 15      39  0        40 40      20  8      33  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:16,38,44,
     DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          47
   D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %       NON     GRAD.   6 OR MORE
   A  SHIP                                   MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   410  94.0   87.8    0.63     *****    ****    ****     40.0    44.0       46.0

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     36 HEALTH PROFESSIONS        (09-12)                                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12         9 12       9 12       9 12         9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.
   M
   E %-ILE RANK         48 82      24  7      24 11        47 67      33 12      20  2        44 33      37 16      44 16
   N
   T % > NATL.MED.      50 99      18  6      20 50        50 99      26  6      33  0        41 33      18  0      33  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:16,44,47,
     DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %
   D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %       NON     GRAD.   6 OR MORE
   A  SHIP                                   MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   300  94.2   77.0    0.47     *****    ****    ****     33.0    26.0       32.0

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     32 MADISON                   (09-12)                                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12         9 12       9 12       9 12         9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.
   M
   E %-ILE RANK                    15  8      17                      15  7      17                    29 22      22
   N
   T % > NATL.MED.                  1  3      20                       5  9      20                    22  8       0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:17,44,
     DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %
   D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %       NON     GRAD.   6 OR MORE
   A  SHIP                                   MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A  1059  86.4  100.0    0.33      39.6    12.5    10.5     50.0    52.0       57.0       ( 46, 48, 50, 52)


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     25 SKYLINE                   (09-12)                                                     NORTHEAST SUBDISTRICT

            SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12         9 12       9 12       9 12         9 12       9 12       9 12
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

     GRD.EQUIV.MED.
   M
   E %-ILE RANK         46 60      22 22      19 27        50 53      30 26      33 32        44 61      37 27      44 33
   N
   T % > NATL.MED.      46 65      15 24      35 31        51 52      26 27      35 26        47 56      30 19      50 19

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:17,39,44,
     DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          46.
   D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %       NON     GRAD.   6 OR MORE
   A  SHIP                                   MOM     DAD     WHITE   DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A  3630  95.0   41.2    0.09      57.5    37.5    39.7     22.0    43.0       56.0       ( 48, 52, 53)
```

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                                                    ------------------------------------------------------------
     22 WOODROW WILSON           (09-12)                                                  NORTHEAST SUBDISTRICT

          SUBTEST:            R E A D I N G                  L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:    ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:    9 12       9 12       9 12        9 12       9 12       9 12        9 12       9 12       9 12
     SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 A
 C    GRD,EQUIV,MED.
 H M
 I E %-ILE RANK       48 46      17  5      19 15       39 43      15  6      17 24       44 44      29 16      29 27
 E N
 V T % > NATL,MED.    49 47       2  2      12 17       43 44       8  0      15 19       46 42      21  2      24 16
 E
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
      AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 8,13,38,
 S    DAILY          NON     DAILY    ECON,  POST-HIGH SCHL     %        %        %        39,44,
 C D MEMBER  ADA   WHITE     TRANS.  STATUS     %      %       NON     GRAD.  6 OR MORE
 H A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS,EXPER.
 O T                                                                                     FEEDER SCHOOLS: LOC #'S
 O A  1476  91,3   45,3     0,12     47,1     23,7   30,9     19,0    63,0       75,0    ( 53)
 L
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Southwest Subdistrict

Results: Generalizations that can be made from the Performance Profiles include:

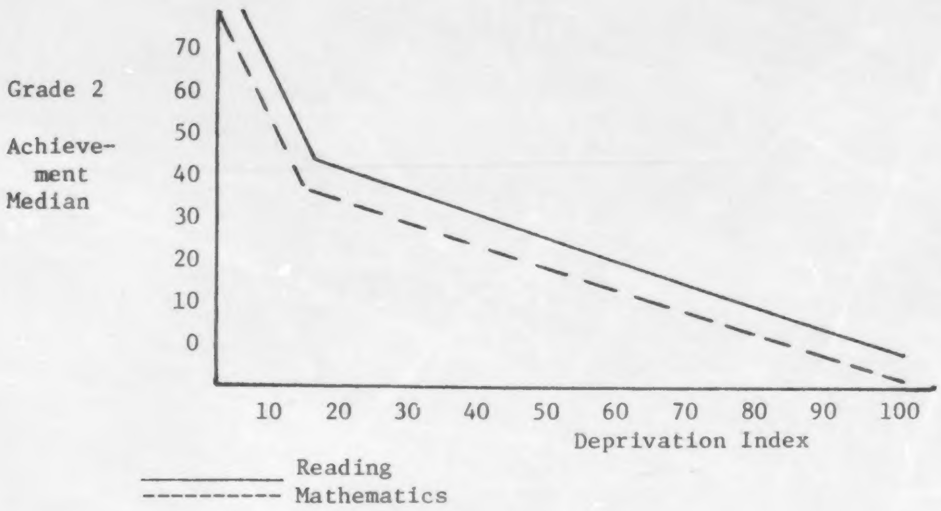
1. Student achievement in reading, language, and mathematics covered the entire spectrum of the norm distribution. For example, in Grade 2 there were six schools having more than 20% of their students in the top large-city decile in reading. However, there were also 10 schools having more than 20% of their Grade 2 students in the lowest large-city decile in reading. This extreme diversity was not typical of all grades (see table below).

Number and Percentage of Schools Having
More than 20% of Their Students
Achieving at the Scale Extremes
(Percentage based on total District)

	Lowest Decile						Highest Decile					
	Read		Lang		Math		Read		Lang		Math	
Grade	N	%	N	%	N	%	N	%	N	%	N	%
2	10	8	14	11	8	6	6	5	0	0	0	0
4	20	24	23	28	26	31	0	0	0	0	0	0
6	27	33	25	30	27	33	0	0	0	0	0	0
8	5	22	6	26	6	26	0	0	0	0	0	0
9	2	9	3	13	0	0	0	0	0	0	0	0
12	2	9	3	13	0	0	0	0	0	0	0	0

2. Student achievement in language, mathematics, and reading was closely related to the various socioeconomic variables reported. For example, it was generally true that the higher the deprivation index, the lower the measured achievement. The following figure illustrates the relationship between deprivation index and achievement. This relationship also holds for percentile parental educational level and achievement (see graph below).

3. Student achievement was closely related to percent minority, percent mobility, and percent attendance. All of these variables were in turn related to the socioeconomic variables.



4. The District's emphasis on reading appears to be achieving results. In almost all schools median reading performance exceeded median language and mathematics performance. This fact generally held for all grade levels in all attendance areas. The exception to this occurred at the ninth and twelfth grade levels in low-achieving schools. At those levels the District does not administer functional-level tests. Therefore, it is hypothesized that inability to read inhibits performance on the language and reading tests much more than on the mathematics tests.

5. Median Anglo performance was generally above norm in grade 2; in other grades and ethnic groups median performance was generally below norm. In grades 2-8 median achievement in reading exceeded that in mathematics; in grades 9 and 12 mathematics was generally higher than reading. Across all ethnic groups and subtests median achievement was highest in grade 2, relative to grade norms.

6. Achievement data are summarized by attendance area in the following tables. Each of the tables specifies the percent of students by ethnic background from each of the attendance areas who scored at or above the 50th percentile on large-city norms. For Grades 2, 4, 6, and 8 the Iowa Tests of Basic Skills were used. The subtests reported are: vocabulary (V), word analysis or work study (W), reading (R), language (L), and mathematics (M). For Grades 9 and 12 the Iowa Tests of Educational Development were used. The Subtests reported are: reading (R), language (L), mathematics (M), social studies (SS), science (S), and use of sources (U). In addition, the feeder schools comprising each attendance area and their deprivation indices are also reported.

W. H. Adamson Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	52	55	45	39	48	30	32	30	29	24	27	30	27	17	26
4	46	43	39	35	27	15	17	15	6	8	15	14	19	12	8
6	43	39	37	33	21	8	9	13	5	4	9	10	16	9	5
8	35	29	31	31	23	6	8	8	6	4	9	8	14	11	9

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	34	41	38	25	28	39	5	8	25	12	3	3	8	21	27	13	11	10
12	52	43	33	41	47	64	4	9	6	4	5	8	10	14	8	10	10	24

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
James Bowie	80	80	Benito Juarez	63	
Harrell Budd	73	73	Sidney Lanier	68	68
Fred Douglass	61		John F. Peeler	63	63
Henderson	25	25	John H. Reagan	72	72
James S. Hogg	70	70			

Middle School	Index
W. E. Greiner	48
L. V. Stockard	36
Boude Storey	62

In the Adamson High School Attendance Area median performance was generally below norm across all ethnic groups, grades, and subtests. Median achievement in reading exceeded that in mathematics except in grade 9 for all ethnic groups and in grade 2 for Anglos. Among all ethnic groups median achievement in grade 2 was higher than that in the remaining grades, relative to grade norms.

David W. Carter Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	57	62	58	41	49	42	43	48	39	34	30	37	52	30	26
4	57	53	52	47	44	20	22	21	15	11	22	17	25	21	25
6	57	51	45	45	40	21	18	20	17	14	30	30	22	19	4
8	60	57	51	60	53	14	14	15	12	9	10	6	13	16	3

	Anglo						Black						MexAm					
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	45	43	53	41	38	42	12	16	27	18	7	10	16	17	28	12	15	8
12	58	45	51	46	58	63	7	8	7	7	7	13	31	30	46	23	38	38

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Birdie Alexander	29	29	Adelle Turner	2	2
Umphrey Lee	56	56	Mark Twain	31	31
T. G. Terry	22	22	Martin Weiss	29	29

Middle School	Index
William Hawley Atwell	6
D. A. Hulcy	37

In the Carter High School Attendance Area median Anglo performance was somewhat above norm in grades 2, 4, 8, and 12; median minority performance lay generally below norm in all grades. Median achievement in reading generally exceeded that in mathematics across ethnic groups and grades. Among all ethnic groups median achievement in grade 2 was higher than that in the remaining grades, relative to grade norms.

Justin F. Kimball Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo						Black						MexAm					
Grade	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	68	70	72	59	62		47	46	52	42	37		40	39	49	23	24	
4	59	56	50	49	41		29	27	26	20	19		35	28	35	23	23	
6	59	56	48	49	40		25	20	22	19	16		29	28	32	32	20	
8	45	43	38	44	33		13	13	11	10	8		13	11	16	13	11	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	49	49	52	48	41	43	17	15	24	20	13	15	19	23	19	17	18	22
12	58	51	50	46	58	64	6	10	7	7	9	14	13	23	17	13	16	33

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John W. Carpenter	19	19	Lenore Kirk Hall	30	30
Nancy Jane Cochran	18	18	Leslie A. Stemmons	16	16
Jefferson Davis	30	30	Mark Twain	31	31
L. O. Donald	35	35	Daniel Webster	11	11

Middle School	Index
T. W. Browne	25
L. V. Stockard	36

In the Kimball High School Attendance Area median Anglo performance was generally above norm in grades 2, 4, and 12; median minority performance lay generally below norm in all grades. Across ethnic groups median achievement in reading exceeded that in mathematics in grades 2-8; this was not true in grades 9 and 12. Median achievement was highest in grade 2 across ethnic groups and lowest in grade 8 for Anglo and Mexican-American students, relative to grade norms.

Sunset Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	50	55	55	38	46	31	29	45	44	21	42	33	48	35	33
4	51	45	42	40	34	25	25	25	8	19	23	17	25	14	15
6	48	45	39	37	30	14	12	14	7	10	16	13	13	14	10
8	35	29	31	31	23	5	3	9	3	2	9	8	15	11	9

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	37	30	37	34	30	33	10	13	20	16	6	13	12	14	22	17	10	16
12	40	40	41	35	39	50	0	6	3	3	3	6	14	21	19	15	18	18

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Arcadia Park	56	56	George Peabody	34	34
Leila P. Cowart	35	35	Rosemont	56	56
Lida Hooe	34	34	Stevens Park	56	56
Anson Jones	57	57	Winnetka	56	56

Middle School	Index
W. E. Greiner	48
L. V. Stockard	36

In the Sunset High School Attendance Area median performance was generally below norm in all ethnic groups, grades, and subtests. Across ethnic groups median achievement in reading exceeded that in mathematics in grades 2-8 but not in grades 9 and 12. Median achievement was highest in grade 2 and lowest in grade 8, relative to grade norms, across all ethnic groups and subtests.

Southwest Subdistrict Summary
Anglo

	R	L	M	SS	S
Grade 2 (Percent of population = 36%)					
Percentile rank of median student	65	46	50		
Range of median percentiles over schools	18-85	20-75	20-64		
Grade equivalent of median student	22	18	19		
Gain in median GE within grade 1974-76	3	0	0		
Grade 4 (Percent of population = 34%)					
Percentile rank of median student	48	45	35		
Range of median percentiles over schools	12-83	9-78	4-62		
Grade equivalent of median student	36	36	35		
Gain in median GE within grade 1974-76	- 1	0	0		
Gain in median GE across grades 1974-76	17	18	16		
Expected gain in median GE	19	16	19		
Grade 6 (Percent of population = 36%)					
Percentile rank of median student	48	40	29		
Range of median percentiles over schools	12-68	7-70	5-59		
Grade equivalent of median student	54	50	50		
Gain in median GE within grade 1974-76	0	- 2	- 4		
Gain in median GE across grades 1974-76	17	14	15		
Expected gain in median GE	18	16	17		
Grade 8 (Percent of population = 28%)					
Percentile rank of median student	39	37	30		
Range of median percentiles over schools	28-68	26-57	17-58		
Grade equivalent of median student	68	66	66		
Gain in median GE within grade 1974-76	- 3	- 1	- 3		
Gain in median GE across grades 1974-76	14	14	12		
Expected gain in median GE	18	18	20		
Grade 9 (Percent of population = 42%)					
Percentile rank of median student	46	39	44	43	40
Range of median percentiles over schools	39-48	28-47	44-51	33-48	35-40
Grade 12 (Percent of population = 47%)					
Percentile rank of median student	51	45	49	43	50
Range of median percentiles over schools	41-55	39-51	39-53	36-43	40-57

Southwest Subdistrict Summary
Black

	R	L	M	SS	S
Grade 2 (Percent of population = 36%)					
Percentile rank of median student	41	40	35		
Range of median percentiles over schools	6-74	20-51	20-50		
Grade equivalent of median student	17	17	16		
Gain in median GE within grade 1974-76	3	3	3		
Grade 4 (Percent of population = 37%)					
Percentile rank of median student	22	13	10		
Range of median percentiles over schools	6-51	6-39	4-35		
Grade equivalent of median student	27	27	28		
Gain in median GE within grade 1974-76	- 1	- 2	0		
Gain in median GE across grades 1974-76	13	13	15		
Expected gain in median GE	12	18	18		
Grade 6 (Percent of population = 37%)					
Percentile rank of median student	15	12	6		
Range of median percentiles over schools	3-35	1-43	1-29		
Grade equivalent of median student	41	39	41		
Gain in median GE within grade 1974-76	0	- 1	- 3		
Gain in median GE across grades 1974-76	13	10	13		
Expected gain in median GE	17	13	15		
Grade 8 (Percent of population = 54%)					
Percentile rank of median student	11	7	5		
Range of median percentiles over schools	7-23	5-24	4-17		
Grade equivalent of median student	50	48	52		
Gain in median GE within grade 1974-76	- 1	- 2	- 2		
Gain in median GE across grades 1974-76	9	8	8		
Expected gain in median GE	12	13	13		
Grade 9 (Percent of population = 34%)					
Percentile rank of median student	19	17	37	24	20
Range of median percentiles over schools	15-27	15-22	29-37	19-28	13-25
Grade 12 (Percent of population = 40%)					
Percentile rank of median student	10	12	22	13	11
Range of median percentiles over schools	7-11	10-19	22-22	10-19	8-11

Southwest Subdistrict Summary
Mexican-American

	R	L	M	SS	S
Grade 2 (Percent of population = 27%)					
Percentile rank of median student	41	24	35		
Range of median percentiles over schools	10-68	9-56	12-55		
Grade equivalent of median student	17	14	16		
Gain in median GE within grade 1974-76	3	0	2		
Grade 4 (Percent of population = 27%)					
Percentile rank of median student	22	20	10		
Range of median percentiles over schools	9-36	6-48	4-31		
Grade equivalent of median student	27	29	28		
Gain in median GE within grade 1974-76	- 1	- 1	- 1		
Gain in median GE across grades 1974-76	13	15	14		
Expected gain in median GE	12	18	18		
Grade 6 (Percent of population = 25%)					
Percentile rank of median student	15	16	8		
Range of median percentiles over schools	6-39	2-44	2-22		
Grade equivalent of median student	41	41	42		
Gain in median GE within grade 1974-76	- 2	- 3	- 3		
Gain in median GE across grades 1974-76	13	11	13		
Expected gain in median GE	17	14	15		
Grade 8 (Percent of population = 17%)					
Percentile rank of median student	15	12	10		
Range of median percentiles over schools	6-25	5-26	4-19		
Grade equivalent of median student	53	52	56		
Gain in median GE within grade 1974-76	- 4	- 4	- 3		
Gain in median GE across grades 1974-76	10	8	11		
Expected gain in median GE	13	15	13		
Grade 9 (Percent of population = 21%)					
Percentile rank of median student	22	20	29	28	25
Range of median percentiles over schools	19-27	10-30	22-37	15-33	20-30
Grade 12 (Percent of population = 12%)					
Percentile rank of median student	18	24	30	23	18
Range of median percentiles over schools	17-40	21-26	27-44	19-40	14-32

Special Programs in DISD Schools

1. Targeted Achievement in Reading Program (TARP)
2. Targeted Achievement in Mathematics Program (TAMP)
3. Multicultural Social Studies Program (MSSP)
4. Community Schools Program
5. Community Involvement Program (CIP)
6. Bilingual Education Component (BEC)
7. Programmed Tutorial Reading Project (PTRP)
8. Reading is Fundamental (RIF)
9. Partners in Reading
10. Advocate/Packet Program
11. Teacher Training Through the Development and Use of Teaching/Learning Packets
12. Emergency School Aid Act (ESAA) Pilot Project
13. Emergency School Aid Act (ESAA) Basic
14. Emergency School Aid Act (ESAA) Special I
15. Special I/Bilingual
16. Emergency School Aid Act (ESAA) Special II
17. Dallas Independent School District's Secondary Reading Program
18. Conceptually Oriented Musicianship Program (COMP)
19. Conceptual Approach to Teaching Science (CATS)
20. Management System
21. Home Education Learning Program (H.E.L.P.)
22. Success Through Strings (STS)
23. Learning Through Piano (LTP)
24. Teaching Art Concepts and Skills (TACS)
25. Fundamental Levels in Physical Skills (FLIPS)
26. Assessment and Accountability Model for Elementary School Guidance
27. Job Placement, Counseling and Follow-up Center
28. K-12 Career Education Infusion
29. Challenging the Gifted Child Project
30. Career Development Program for the Hearing Impaired K-12
31. Bilingual Computer Assisted Instruction
32. Supplementary Spanish Easy Reading Materials Project (SSERM)
33. Parent Education Program (PEP)
34. Creative Arts Curriculum
35. Nutrition Education Program
36. Comprehensive Health Education or Health Education - Skills for Living
37. Environmental Education Program
38. Alternative Science Project
39. Career Oriented Pretechnical Physics Mini-courses
40. Bilingual Education Program (BEP)
41. Indo-Chinese Component
42. Campus Level Planning (CLP)
43. Highlighting Early Learning Problems (HELP)
44. Plan A
45. Project Zero Reject
46. Career Development Centers (CDC)
47. Magnet Schools
48. Academies
49. Vanguard Schools
50. Lincoln High School Renewal Project (LHSRP)
51. Instructional Personnel (Resource Teacher/Instructional Leaders)

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  165 BENITO JUAREZ              (KN-02)                                                      SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                      L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:  ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2         2          2           2          2          2            2          2          2
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.              9         17                      13         14                      14         16
M
F %-ILE RANK                  6         41                      20         24                      25         35
N
T % > NATL.MED.               8         20                      14          0                       7         20

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   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %        5, 6, 9,24,25,40,43,49,
D MEMBER  ADA   WHITE     TRANS.   STATUS    %       %      NON     GRAD.  6 OR MORE    51.
A  SHIP                                     MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                      FEEDER SCHOOLS: LOC #'S
A   160  84.1   98.1      0.56     *****    ****    ****    51.0    38.0      37.0

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  138 FRED DOUGLASS              (KN-03)                                                      SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                      L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:  ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2         2          2           2          2          2            2          2          2
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.             14                                 18                                 18
M
E %-ILE RANK                 20                                 46                                 46
N
T % > NATL.MED.              40                                 50                                 50

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %        5, 6, 8, 9,23,24,25,32,
D MEMBER  ADA   WHITE     TRANS.   STATUS    %       %      NON     GRAD.  6 OR MORE    40,43,44,51.
A  SHIP                                     MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                      FEEDER SCHOOLS: LOC #'S
A   133  92.2   97.7      0.18     36.7     ****    ****    76.0    75.0      50.0
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  235 BIRDIE ALEXANDER           (KN-06)                                                      SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                      L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:  ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6     2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.   18 28 61  19 27 39         48    17 30 66   18 26 37         44     18 34 63   18 26 40         56
M
E %-ILE RANK       48 24 64  54 22 12         31    40 24 70   46 10  8         24     46 31 67   46  6  5         48
N
T % > NATL.MED.    43 33 86  55 11 10         33    43 33 75   46 12 15          0     43 33 75   42  8 10          0

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 9,11,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %        23,25,43,44,
D MEMBER  ADA   WHITE     TRANS.   STATUS    %       %      NON     GRAD.  6 OR MORE
A  SHIP                                     MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                      FEEDER SCHOOLS: LOC #'S
A   602  89.6   94.6      0.15     55.5     ****    ****    30.0    19.0      48.0


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  105 ARCADIA PARK               (KN-06)                                                      SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                      L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:  ANGLO     BLACK      MEXAM       ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6     2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.   20 30 44     27      14 24 35    14 30 36      26       13 26 31     13 28 39      20       11 24 34
M
E %-ILE RANK       58 30 21     22      20 14  6    24 24  7      10       20 10  2     20 10  4       1       12  4  1
N
T % > NATL.MED.    58 36 25      0      31  8  6    35 19 13       0       36  0  6     15  9 13       0        8  0  0

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON.   POST-HIGH SCHL    %        %        %        5, 8, 9,24,25,33,43,44,
D MEMBER  ADA   WHITE     TRANS.   STATUS    %       %      NON     GRAD.  6 OR MORE    51.
A  SHIP                                     MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                      FEEDER SCHOOLS: LOC #'S
A   376  90.9   33.2      0.11     41.2     ****    ****    31.0    38.0      81.0
```

```
  112 JAMES BOWIE               (KN=06)                                                       SOUTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.   11 27 45  14 32 33  12 27 41   17 27 46  14 26 34  13 26 40   19 24 41  14 24 33  12 26 38
M
E %-ILE RANK       10 22 23  20 36  5  12 22 15   40 13 29  24 10     20 10 14   50  4  6  25  4  1  15  6  3
N
T % > NATL.MED.    42 16 21  24 21 11  25 19 14   36  0 13  25 14 11  14 16 17   55  8  0  19  0  6  15  6  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %        4, 5, 8, 9,24,25,43,44,
D MEMBER  ADA  WHITE    TRANS.  STATUS    %       %      NON     GRAD.  6 OR MORE    51.
A  SHIP                                  MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                   FEEDER SCHOOLS: LOC #'S
A   597  88.6   81.6    0.44     34.0    ****    ****    38.0    24.0       41.0

------------------------------------------------------------------------------------------------------------------
  115 HARRELL BUDD              (KN=06)                                                       SOUTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.   11 27 36  15 25 35  14 27 42    9 23 30  16 25 33  13 32 35   12 21 34  14 26 34  13 28 33
M
E %-ILE RANK       10 22  7  26 16  6  20 22 17    7  4  1  35  8  3  20 32  5   15  2  1  25  6  1  20 10  1
N
T % > NATL.MED.    50  0  0  29 15  7  25 11 40   50  0 50  23 11 11   8 44 10   50  0  0  19  7  2   8 11 10

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %        4, 5, 6, 8, 9,18,19,20,
D MEMBER  ADA  WHITE    TRANS.  STATUS    %       %      NON     GRAD.  6 OR MORE    24,25,36,43,44,51.
A  SHIP                                  MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                   FEEDER SCHOOLS: LOC #'S
A   832  92.8   98.4    0.29     46.1    ****    ****    47.0    45.0       62.0

------------------------------------------------------------------------------------------------------------------
  121 JOHN W. CARPENTER         (KN=06)                                                       SOUTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.   26 39 53  26 30 47  21  8 23   22 36 52  18 29 42  14 44 48   22 41 53  19 31 46  18 12 51
M
E %-ILE RANK       74 57 45  74 30 28  62  1  1   64 45 44  46 20 18  24 66 35   64 62 39  50 23 16  46  1 32
N
T % > NATL.MED.    78 54 49  66 37 21  75 50  0   58 42 46  50 21 30  25 99  0   69 62 33  53 29 21  50 50  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %        41,43,44,
D MEMBER  ADA  WHITE    TRANS.  STATUS    %       %      NON     GRAD.  6 OR MORE
A  SHIP                                  MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                   FEEDER SCHOOLS: LOC #'S
A   493  90.0   55.0    0.22     61.1    ****    ****    36.0    55.0       77.0


------------------------------------------------------------------------------------------------------------------
  236 NANCY JANE COCHRAN        (KN=06)                                                       SOUTHWEST SUBDISTRICT

         SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.   26 39 56  25 22 35  21 25 35   20 40 52  16 25 36  13 31 35   20 34 46  18 24 40  18 32 36
M
E %-ILE RANK       74 57 53  72 10  6  62 16  6   56 57 44  35  8  7  20 28  5   55 31 16  46  4  5  46 23  2
N
T % > NATL.MED.    82 63 60  72  8  5  61 19  9   54 57 47  46 13  9  27 29  0   63 40 38  50  4 10  47 24  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 9,11,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %        23,25,43,44.
D MEMBER  ADA  WHITE    TRANS.  STATUS    %       %      NON     GRAD.  6 OR MORE
A  SHIP                                  MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                   FEEDER SCHOOLS: LOC #'S
A   550  86.1   58.5    0.95     54.0    ****    ****    39.0    23.0       54.0
```

```
  130 LEILA P. COWART         (KN=06)                                                                      SOUTHWEST SUBDISTRICT

              SUBTEST:          R E A D I N G                          L A N G U A G E                        M A T H E M A T I C S
            ETHNICITY:   ANGLO      BLACK      MEXAM          ANGLO      BLACK      MEXAM            ANGLO      BLACK      MEXAM
                GRADE:   2  4  6   2  4       2  4  6        2  4  6   2  4  6   2  4  6           2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.       21 37 53      41 43  18 25 42      18 39 48         41 40  14 32 44        18 36 51        31 35  16 32 40
M
E %-ILE RANK            62 51 45      62 19  48 16 17      46 54 35         59 14  24 32 24        46 39 32        19  2  35 23  5
N
T % > NATL.MED.         56 54 46      99  0  48 21 21      38 65 43         99  0  35 33 21        50 48 36         0  0  24 18 16
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %       %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
    DAILY           NON     DAILY      ECON.   POST-HIGH SCHL     %        %        %          25,43,44.
D MEMBER   ADA    WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
A  SHIP                                         MOM      DAD    WHITE   DEGREE  YRS.EXPER.   FEEDER SCHOOLS: LOC #'S
T
A   631   83.8    60.7      0.14      48.2     ****     ****    33.0     11.0      48.0

--------------------------------------------------------------------------------------------------------------------------------
  133 JEFFERSON DAVIS         (KN=06)                                                                      SOUTHWEST SUBDISTRICT

              SUBTEST:          R E A D I N G                          L A N G U A G E                        M A T H E M A T I C S
            ETHNICITY:   ANGLO      BLACK      MEXAM          ANGLO      BLACK      MEXAM            ANGLO      BLACK      MEXAM
                GRADE:   2  4  6   2  4  6   2  4  6        2  4  6   2  4  6   2  4  6           2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.       21 37 60  14 27 37  23 24 44      22 40 47  16 24 36  13 37 40        20 37 60  15 24 36  14 28 42
M
E %-ILE RANK            62 51 62  20 22  8  68 14 21      64 57 32  35  6  7  20 48 14        55 43 59  30  4  2  25 10  8
N
T % > NATL.MED.         60 55 80  40 14 15  55 29 25      60 55 40  31 18 18  36 43 25        60 41 67  27 11  9  27 29 17
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %       %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
    DAILY           NON     DAILY      ECON.   POST-HIGH SCHL     %        %        %          23,25,41,43,44.
D MEMBER   ADA    WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
A  SHIP                                         MOM      DAD    WHITE   DEGREE  YRS.EXPER.   FEEDER SCHOOLS: LOC #'S
T
A   592   87.7    72.3      0.18      52.3     ****     ****    35.0     31.0      58.0
--------------------------------------------------------------------------------------------------------------------------------
  136 L. O. DONALD            (KN=06)                                                                      SOUTHWEST SUBDISTRICT

              SUBTEST:          R E A D I N G                          L A N G U A G E                        M A T H E M A T I C S
            ETHNICITY:   ANGLO      BLACK      MEXAM          ANGLO      BLACK      MEXAM            ANGLO      BLACK      MEXAM
                GRADE:   2  4  6   2  4  6   2  4  6        2  4  6   2  4  6   2  4  6           2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.       23 35 49         54  17 32 47      20 34 44         52  14 37 52        21 31 47         54  14 34 48
M
E %-ILE RANK            68 45 39         48  41 36 28      64 39 35         44  24 48 44        60 19 19         42  25 31 22
N
T % > NATL.MED.         65 47 49         33  46 32 24      54 31 31         33  14 49 43        63 26 26         33  11 22 30
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %       %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 9,23,25,
    DAILY           NON     DAILY      ECON.   POST-HIGH SCHL     %        %        %          43,44.
D MEMBER   ADA    WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
A  SHIP                                         MOM      DAD    WHITE   DEGREE  YRS.EXPER.   FEEDER SCHOOLS: LOC #'S
T
A   538   84.7    50.2      0.19      46.6     ****     ****    38.0     48.0      81.0


--------------------------------------------------------------------------------------------------------------------------------
  149 LENORE KIRK HALL        (KN=06)                                                                      SOUTHWEST SUBDISTRICT

              SUBTEST:          R E A D I N G                          L A N G U A G E                        M A T H E M A T I C S
            ETHNICITY:   ANGLO      BLACK      MEXAM          ANGLO      BLACK      MEXAM            ANGLO      BLACK      MEXAM
                GRADE:   2  4  6   2  4  6   2  4  6        2  4  6   2  4  6   2  4  6           2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.       27 33 53  15 27 41  17 26 42      20 32 50  14 26 35  14 25 48        20 34 49  15 23 42  16 27 43
M
E %-ILE RANK            76 39 45  26 22 15  41 19 17      56 32 40  24 10  5  24  8 35        55 31 25  30  3  9  35  8 10
N
T % > NATL.MED.         73 33 48  42  9 25  44 21 22      53 33 36  23 25 27  20 18 22        63 23 27  27 17 19  20 17  5
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %       %      % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,23,
    DAILY           NON     DAILY      ECON.   POST-HIGH SCHL     %        %        %          25,43,44.
D MEMBER   ADA    WHITE     TRANS.   STATUS      %        %      NON     GRAD.   6 OR MORE
A  SHIP                                         MOM      DAD    WHITE   DEGREE  YRS.EXPER.   FEEDER SCHOOLS: LOC #'S
T
A   599   89.4    53.7      0.35      50.8     ****     ****    33.0     38.0      75.0
```

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-----------------------------------------------------------------------------------------------------------
 152 HENDERSON                  (KN=06)                                              SOUTHWEST SUBDISTRICT

        SUBTEST:           R E A D I N G                     L A N G U A G E               M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
          GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
 SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 GRD,EQUIV,MED.   20 36 53  17 27 39  14 22 37    17 38 52  17 30 38  16 28 44    18 36 49  16 28 39  17 24 40
M
E %=ILE RANK      58 54 45  41 22 12  20 10  8    40 51 48  40 24 10  35 16 24    46 39 25  35 10  4  40  4  5
N
T % > NATL,MED.   52 53 46  30 22  5  31 27 14    45 53 49  45 29 14  27 15 17    50 28 30  40 11  5  41  0 14

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 9,23,
  DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %        25,43,44,
D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE
A  SHIP                                   MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                  FEEDER SCHOOLS: LOC #'S
A   593  86,9   49,3    0,23     52,9     ****    ****    24,0    24,0      64,0

-----------------------------------------------------------------------------------------------------------
 157 JAMES STEPHEN HOGG         (KN=06)                                              SOUTHWEST SUBDISTRICT

        SUBTEST:           R E A D I N G                     L A N G U A G E               M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
          GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
 SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 GRD,EQUIV,MED.   14 30 39  20 27 51  11 21 39    10 30 38  18 35 50  13 24 38    16 25 44  18 30 40  16 25 39
M
E %=ILE RANK      20 30 12  58 22 39  10  8 12     9 24 10  46 42 40  20  6 10    35  5 12  46 16  5  35  5  4
N
T % > NATL,MED.   25 40 18  57  0 40  11  0  0    13 20 10  43  0 40   0  5  6    38 20  9  43  0  0  22  5  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
  DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %        5, 6, 8, 9,10,24,25,43,
D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE   44,51.
A  SHIP                                   MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                  FEEDER SCHOOLS: LOC #'S
A   305  89,8   70,5    0,62     37,1     ****    ****    37,0    44,0      62,0

-----------------------------------------------------------------------------------------------------------
 158 LIDA HOOE                  (KN=06)                                              SOUTHWEST SUBDISTRICT

        SUBTEST:           R E A D I N G                     L A N G U A G E               M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
          GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
 SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 GRD,EQUIV,MED.   30 40 55         24  22 29 42    20 35 53         24  20 34 41    22 37 54         33  19 32 39
M
E %=ILE RANK      85 60 55          1  65 27 17    56 45 46          1  56 39 16    64 43 42          1  50 23  4
N
T % > NATL,MED.   86 60 54          0  77 25 12    60 49 48          0  53 42  8    79 44 40          0  53 26 12

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 6, 8, 9,
  DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %        25,43,44,
D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE
A  SHIP                                   MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                  FEEDER SCHOOLS: LOC #'S
A   596  87,0   46,2    0,28     48,8     ****    ****    30,0    30,0      83,0


-----------------------------------------------------------------------------------------------------------
 164 ANSON JONES                (KN=06)                                              SOUTHWEST SUBDISTRICT

        SUBTEST:           R E A D I N G                     L A N G U A G E               M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO      BLACK      MEXAM
          GRADE:  2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6      2  4  6    2  4  6    2  4  6
 SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 GRD,EQUIV,MED.   14 30 47  12 36 34  14 28 36    13 25 47   9 26 34  10 28 37    14 29 42  14 22 42  15 29 40
M
E %=ILE RANK      20 30 28  12 48  5  20 24  7    20  8 32   7 10  4   9 16  8    25 13  8  25  2  8  30 13  5
N
T % > NATL,MED.   28 24 41  22 50 20  19 16  3    10 23 39  38 25  0  10  9  6    28 24 19  11 25 20  13 17  3

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
  AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
  DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %        5, 6, 9,24,25,41,43,44,
D MEMBER  ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE   51.
A  SHIP                                   MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                  FEEDER SCHOOLS: LOC #'S
A   586  89,4   56,6    0,34     41,9     ****    ****    28,0    32,0      64,0
```

```
  173 SIDNEY LANIER             (KN=06)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                     L A N G U A G E                   M A T H E M A T I C S
       ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    30 45 63  25 25 39  16 27 36   22 40 66  33 25 37  14 31 41   22 36 54  10 28 39  16 28 40
M
E %-ILE RANK        85 72 68  72 16 12  33 22  7   64 57 70  86  8  8  24 28 16   64 39 42   8 10  4  35 10  5
N
T % > NATL.MED.     77 71 71  67 22 11  29 15  6   69 71 63  67 18 17  14 25 14   62 44 33   0 15  8  36  8  3

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY         NON     DAILY    ECON,  POST-HIGH SCHL     %        %         %        5, 6, 9,24,25,32,43,44,
D MEMBER   ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE    49,51.
A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   725   92.1   85.8     0.22    34.1     ****    ****     31.0    33.0      36.0    (138,165)


--------------------------------------------------------------------------------------------------------------------
  175 UMPHREY LEE               (KN=06)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                     L A N G U A G E                   M A T H E M A T I C S
       ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    17 26 47  17 25 43  17 28 34   11 26 43  14 26 40  11 28 28   15 29 43  13 25 43  16 24 36
M
E %-ILE RANK        41 19 28  41 16 19  41 24  5   13 10 21  24 10 14  13 16  1   30 13 10  20  5 10  35  4  2
N
T % > NATL.MED.     50 40 38  45 15 15  50 17  0   25 20 38  25 15 17  25 17  0   25 25 13  19  4  8  50 50  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY         NON     DAILY    ECON,  POST-HIGH SCHL     %        %         %        5, 9,23,24,25,41,43,44,
D MEMBER   ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE    51.
A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   887   96.0   93.8     0.16    49.8     ****    ****     40.0    39.0      61.0

--------------------------------------------------------------------------------------------------------------------
  190 GEORGE PEABODY            (KN=06)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                     L A N G U A G E                   M A T H E M A T I C S
       ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    23 27 49  10 26     18 25 44   26 30 47  16 44     18 28 44   22 24 50  10 40     19 26 46
M
E %-ILE RANK        72 24 33   8 19     48 16 21   75 24 32  35 66     56 16 24   64 10 29   8 55     50  6 16
N
T % > NATL.MED.     69 35 39   0 50     48 13 23   59 30 32   0 99     52 19 20   69 17 36   0 99     61  6 20

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 8, 9.11,
   DAILY         NON     DAILY    ECON,  POST-HIGH SCHL     %        %         %        23,25,43,44.
D MEMBER   ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE
A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   445   84.8   55.0     0.25    44.2     ****    ****     33.0    33.0      61.0



--------------------------------------------------------------------------------------------------------------------
  192 JOHN F. PEELER            (KN=06)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:          R E A D I N G                     L A N G U A G E                   M A T H E M A T I C S
       ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    13 23 41  31 15 33  16 22 35   14 30 41  29 24 36  14 26 36   16 29 36  21 26 28  14 24 37

  %-ILE RANK        15 12 15  85  2  5  33 10  6   24 24 16  80  6  7  24 10  7   35 13  2  60  6  1  35  4  3

T % > NATL.MED.     27 18  0  67  0  0  36  8 10   32 36  0  67 25  0  26 14 14   32 18  0  67  0  0  28  8  3

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS   SPECIAL PROGRAMS: 1, 2, 3,
   DAILY         NON     DAILY    ECON,  POST-HIGH SCHL     %        %         %        5, 6, 9,10,24,25,41,43,
  MEMBER   ADA  WHITE    TRANS.  STATUS     %       %      NON     GRAD.  6 OR MORE    44,51.
   SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
                                                                                     FEEDER SCHOOLS: LOC #'S
    450   90.4   76.9     0.22    39.7     ****    ****     43.0    47.0      58.0
```

```
        SUBTEST:          R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    16 35 44      24      14 25 42    13 29 40      32      13 26 46    20 35 42      21      16 30 48
 M
 E %=ILE RANK        33 45 21      14      20 16 17    20 20 14      32      20 10 29    55 35  8       2      35 16 12
 N
 T % > NATL,MED,     35 35 20       0      24 21 13    24 18 13       0      15 18 26    53 38  7       0      33 11 16

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY    ECON,   POST-HIGH SCHL    %         %        %        5, 6, 8, 9,18,24,25,43,
 D MEMBER  ADA  WHITE     TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE   44,51,
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                     FEEDER SCHOOLS: LOC #'S
 A   430  89,2   73,8    0,21     40,0    ****    ****     48,0    38,0      62,0

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   204 ROSEMONT                     (KN=06)                                                 SOUTHWEST SUBDISTRICT

        SUBTEST:          R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    20 35 56  21 27 42  15 27 37    17 35 52  18 28 47  17 28 40    16 38 53  14 30 46  16 34 46
 M
 E %=ILE RANK        58 48 53  62 22 17  26 22  8    46 42 44  46 16 32  40 16 14    35 48 39  25 16 16  35 31 16
 N
 T % > NATL,MED,     54 50 55  62 29 26  48 19  4    44 44 46  48 29 21  35 26 13    39 49 42  19 21 21  21 19 13

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY    ECON,   POST-HIGH SCHL    %         %        %        5, 9,23,24,25,43,44,51,
 D MEMBER  ADA  WHITE     TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                     FEEDER SCHOOLS: LOC #'S
 A   705  93,0   47,8    0,23     51,6    ****    ****     35,0    35,0      55,0

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   210 LESLIE A, STEMMONS           (KN=06)                                                 SOUTHWEST SUBDISTRICT

        SUBTEST:          R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    25 38 54  27 35 63  18 32 42    22 38 49  24 32 52  13 34 42    19 36 52  18 32 35  12 35 42
 M
 E %=ILE RANK        72 57 48  76 45 68  48 36 17    70 51 40  70 32 44  20 39 18    50 39 35  46 23  2  15 35  8
 N
 T % > NATL,MED,     68 57 48  75 50 60  30 44 14    62 52 44  75 30 40  30 33 17    55 37 38  50 20 20  20 33 23

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
    DAILY         NON     DAILY    ECON,   POST-HIGH SCHL    %         %        %       41,43,44,
 D MEMBER  ADA  WHITE     TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                     FEEDER SCHOOLS: LOC #'S
 A   755  89,8   23,0    0,09     55,6    ****    ****     33,0    48,0      79,0


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   211 STEVENS PARK                 (KN=06)                                                 SOUTHWEST SUBDISTRICT

        SUBTEST:          R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
      ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
          GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    20 37 57  15 17 39  20 28 51    16 42 56  20 25 40  16 31 52    20 36 51  14 26 32  20 26 46
 M
 E %=ILE RANK        62 51 55  26  3 12  58 24 39    35 62 52  56  8 14  35 28 44    55 46 32  25  6  1  55  6 16
 N
 T % > NATL,MED,     64 59 61  33  7  7  60  9 27    30 59 57  56  7 21  35 36 27    55 45 29  33  7  7  65 25 13

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY    ECON,   POST-HIGH SCHL    %         %        %        5, 9,24,25,43,44,51,
 D MEMBER  ADA  WHITE     TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                     FEEDER SCHOOLS: LOC #'S
 A   478  92,7   51,7    0,30     50,4    ****    ****     35,0    40,0      75,0
```

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----------------------------------------------------------------------------------------------------
   213 T. G. TERRY                    (KN-06)                                          SOUTHWEST SUBDISTRICT

            SUBTEST:          R E A D I N G                      L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6       2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.     20 29 50  20 28 40  23 24 44     18 47 43  17 29 38  24 28 39    20 38 52  18 30 42  18 22 50
 M
 E %-ILE RANK         62 27 36  58 24 14  68 14 21     46 73 21  40 20 10  70 16 12    55 48 35  46 16  8  46  2 29
 N
 T % > NATL.MED.      54 40 29  53 29 17  78  0 38     50 67 17  43 24 14  56 25 25    55 50 27  44 10 15  33 25  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
    DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          23,25,43,44.
 D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   673  89.3   68.4     0.17     58.1    ****    ****     3[illegible]    13.0       70.0

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   219 ADELLE TURNER                  (KN-06)                                          SOUTHWEST SUBDISTRICT

            SUBTEST:          R E A D I N G                      L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6       2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.     28 50 56  19 36 49  44           18 49 56  17 34 51   0          20 42 57  18 34 50  28
 M
 E %-ILE RANK         79 83 53  54 48 33  98           46 77 52  40 39 42  99          55 62 50  46 31 29  87
 N
 T % > NATL.MED.      75 85 55  51 50 38  99           50 85 59  48 37 44  99          58 62 55  44 27 34  99

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
    DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          23,25,29,41,43,44.
 D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   531  92.5   70.6     0.10     64.2    ****    ****     32.0    32.0       77.0

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   220 MARK TWAIN                     (KN-06)                                          SOUTHWEST SUBDISTRICT

            SUBTEST:          R E A D I N G                      L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6       2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.     23 42 63  17 27 42  36 25 57     17 38 61  17 28 43  29 26 56    22 39 58  18 28 41  22 27 54
 M
 E %-ILE RANK         68 64 68  41 22 17  92 16 55     40 51 61  40 16 21  80 10 52    64 52 53  46 10  6  64  8 42
 N
 T % > NATL.MED.      76 62 72  47 21 17  99 33 99     43 55 69  45 25 19  99 33 67    67 52 57  37 17 11  99 33 33

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 8, 9,
    DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          23,25,37,42,43,44,49.
 D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   669  89.5   72.7     0.18     56.6    ****    ****     33.0    39.0       57.0


----------------------------------------------------------------------------------------------------
   225 DANIEL WEBSTER                 (KN-06)                                          SOUTHWEST SUBDISTRICT

            SUBTEST:          R E A D I N G                      L A N G U A G E                  M A T H E M A T I C S
          ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6       2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.     28 44 62  20 37 48  14 29 61     26 47 58  18 34 46  13 32 56    20 42 59  16 34 48  12 33 55
 M
 E %-ILE RANK         79 70 66  58 51 31  20 27 64     75 73 56  46 39 29  20 32 52    55 62 56  35 31 25  15 27 45
 N
 T % > NATL.MED.      76 71 66  57 51 24  50 25 80     72 71 61  48 41 23  33 25 60    62 56 54  32 30 24  33  0 40

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,11,
    DAILY        NON     DAILY     ECON.  POST-HIGH SCHL     %        %        %          23,25,43,44.
 D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   719  89.2   53.0     0.18     61.9    ****    ****     32.0    43.0       57.0
```

```
                                                                                    ------------------
  226 MARTIN WEISS              (KN=06)                                          SOUTHWEST SUBDISTRICT

           SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:    ANGLO      BLACK      MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
            GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    16 28 48  14 25 39  12 22 42    14 27 45  18 32 40  14 28 36    17 28 47  15 32 40  12 27 42
 M
 E %=ILE RANK        33 24 31  20 16 12  12 10 17    24 13 26  46 32 14  24 16  7    40 10 19  30 23  5  15  8  8
 N
 T % > NATL,MED,     44 17 44  29 25 11  25 13 10    25 14 28  43 30  5   0 25 20    28 17 20  25 15 11   0  0  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,25,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %         %       43,44,
  D MEMBER  ADA   WHITE    TRANS,   STATUS    %       %      NON      GRAD,  6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A   459  86,6   56,6     0,13     47,4    ****    ****    42,0     53,0      79,0

 ------------------------------------------------------------------------------------------------------------------
  229 WINNETKA                  (KN=06)                                          SOUTHWEST SUBDISTRICT

           SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:    ANGLO      BLACK      MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
            GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    14 25 43   7     31  14 24 35    13 30 43   7     26  14 26 38    18 27 42   4     32  15 24 40
 M
 E %=ILE RANK        20 16 19   3      3  20 14  6    20 24 21   3      1  24 10 10    46  8  8   1      1  30  4  5
 N
 T % > NATL,MED,     25 19 25  50      0  45 11  9    24 40 15   0      5  22 20  3    47  6  6  50      0  30  6  3

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %         %       5, 6, 9,10,24,25,43,44,
  D MEMBER  ADA   WHITE    TRANS,   STATUS    %       %      NON      GRAD,  6 OR MORE    51,
  A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A   468  91,8   60,0     0,21     37,9    ****    ****    40,0     25,0      70,0

 ------------------------------------------------------------------------------------------------------------------
  42 WILLIAM HAWLEY ATWELL     (07-08)                                           SOUTHWEST SUBDISTRICT

           SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:    ANGLO      BLACK      MEXAM       ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
            GRADE:   8          8          8            8         8         8           8         8         8
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    84         59         60           78        59        56          80        60        60
 M
 E %=ILE RANK        68         23         25           57        24        19          58        17        17
 N
 T % > NATL,MED,     66         20          8           58        22         8          65        18         0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:12,44,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %         %
  D MEMBER  ADA   WHITE    TRANS,   STATUS    %       %      NON      GRAD,  6 OR MORE
  A  SHIP                                    MO      DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A   454  96,8   66,4     0,14     69,5    48,     50,0    33,0     32,0      57,0     (213,219,220)


 ------------------------------------------------------------------------------------------------------------------
  43 T,W, BROWNE               (07-08)                                           SOUTHWEST SUBDISTRICT

           SUBTEST:          R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:    ANGLO      BLACK      MEX  M      ANGLO     BLACK     MEXAM       ANGLO     BLACK     MEXAM
            GRADE:   8          8          8            8         8         8           8         8         8
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    76         54         60           71        51        58          72        52        61
 M
 E %=ILE RANK        54         16         25           46        11        22          42         5        19
 N
 T % > NATL,MED,     57         15         27           44        11        25          43         9        23

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARE TAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:14,44,
    DAILY          NON     DAILY     ECON,  POST HIGH SCHL    %         %         %
  D MEMBER  ADA   WHITE    TRANS,   STATUS    %       %      NON      GRAD,  6 OR MORE
  A  SHIP                                    MO      DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                     FEEDER SCHOOLS: LOC #'S
  A  1179  95,0   55,2     0,13     57,4    30,     31,4    37,0     35,0      54,0     (121,133,210,220,225,236)
```

```
--------------------------------------------------------------------------------------------
   49 W. E. GREINER              (07-08)                                 SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
            GRADE:  8          8          8          8          8          8         8          8          8
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    63         46         48         64         48         50        63         50         54
M
E %-ILE RANK        30          7          9         34          7          9        23          4          8
N
T % > NATL.MED.     32          4          9         33         12         15        25          3         10

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:14,36,42,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %       %        %          44.
D MEMBER  ADA  WHITE    TRANS.  STATUS     %      %      NON    GRAD.  6 OR MORE
A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                 FEEDER SCHOOLS: LOC #'S
A  1216  89.8   55.1    0.14     44.3    22.6   19.2    48.0   19.0      54.0     (112,152,157,158,192,197,
                                                                                   204,211,229)
--------------------------------------------------------------------------------------------
   63 D. A. HULCY                (07-08)                                 SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
            GRADE:  8          8          8          8          8          8         8          8          8
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    65         46         50         62         48         45        71         52         54
M
E %-ILE RANK        34          7         11         30          7          4        40          5          8
N
T % > NATL.MED.     38         11          6         37         12         17        32          4          6

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:12,44,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %       %        %
D MEMBER  ADA  WHITE    TRANS.  STATUS     %      %      NON    GRAD.  6 OR MORE
A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                 FEEDER SCHOOLS: LOC #'S
A   697  95.4   85.2    0.10     50.1    25.0   29.4    46.0   31.0      46.0     (175,226,235)

--------------------------------------------------------------------------------------------
   59 L. V. STOCKARD             (07-08)                                 SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
            GRADE:  8          8          8          8          8          8         8          8          8
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.    62         50         53         60         45         52        60         50         57
M
E %-ILE RANK        28         11         15         25          4         12        17          4         12
N
T % > NATL.MED.     25          0          7         29          6         14        20          0          8

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:14,35,44,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %       %        %
D MEMBER  ADA  WHITE    TRANS.  STATUS     %      %      NON    GRAD.  6 OR MORE
A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                 FEEDER SCHOOLS: LOC #'S
A  1093  88.3   54.6    0.16     39.2    15.6   20.6    48.0   40.0      52.0     (105,130,136,149,164,173,
                                                                                   190)


--------------------------------------------------------------------------------------------
   2 W. H. ADAMSON               (09-12)                                 SOUTHWEST SUBDISTRICT

          SUBTEST:        R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
            GRADE:  9 12       9 12       9 12       9 12       9 12       9 12      9 12       9 12       9 12
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.
M
E %-ILE RANK        38 51      15 10      19 17      33 39      17 12      22 24     44 39      29 22      37 27
N
T % > NATL.MED.     34 52       5  4       8 10      41 43       8  9      21 14     38 33      25  6      27  8

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:13,27,36,
   DAILY        NON     DAILY    ECON.  POST-HIGH SCHL    %       %        %          38,39,44,46,
D MEMBER  ADA  WHITE    TRANS.  STATUS     %      %      NON    GRAD.  6 OR MORE
A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS.EXPER.
T                                                                                 FEEDER SCHOOLS: LOC #'S
A  1407  85.9   75.9    0.19     40.7    15.6   13.8    24.0   46.0      68.0     ( 49, 59, 60)
```

```
   23 DAVID W. CARTER            (09-12)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:           R E A D I N G                         L A N G U A G E                   M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM         ANGLO      BLACK       MEXAM
            GRADE:   9 12       9 12       9 12          9 12       9 12       9 12          9 12       9 12        9 12
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,
M
E %-ILE RANK         46 54      17 11      24 40         36 45      15 11      10 24         51 53      29 22       22 44
N
T % > NATL,MED,      45 58      12  7      16 31         43 45      16  8      17 30         53 51      27  7       28 46

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:17,36,39,
   DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %        %          44,
 D MEMBER  ADA   WHITE    TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A  2074  95,2   71,3     0,13     52,5    33,3    32,0    31,0    46,0       72,0       ( 42, 63)

------------------------------------------------------------------------------------------------------------------------
    8 JUSTIN F. KIMBALL          (09-12)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:           R E A D I N G                         L A N G U A G E                   M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM         ANGLO      BLACK       MEXAM
            GRADE:   9 13       9 12       9 12          9 12       9 12       9 12          9 12       9 12        9 12
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,
M
E %-ILE RANK         48 53      27 11      27 22         47 51      22 19      30 21         51 49      37 22       29 33
N
T % > NATL,MED,      49 58      17  6      19 13         49 51      15 10      23 23         52 50      24  7       19 17

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:17,36,39,
   DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %        %          42,44,
 D MEMBER  ADA   WHITE    TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A  2566  93,0   37,8     0,12     60,6    35,3    50,6    29,0    50,0       69,0       ( 43, 59)

------------------------------------------------------------------------------------------------------------------------
   18 SUNSET                     (09-12)                                                       SOUTHWEST SUBDISTRICT

          SUBTEST:           R E A D I N G                         L A N G U A G E                   M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM         ANGLO      BLACK      MEXAM         ANGLO      BLACK       MEXAM
            GRADE:   9 12       9 12       9 12          9 12       9 12       9 12          9 12       9 12        9 12
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,
M
E %-ILE RANK         43 41      22  7      19 17         28 39      17 10      20 26         44 44      29 22       29 27
N
T % > NATL,MED,      37 40      10  0      12 14         30 40      13  6      14 21         37 41      20  3       22 19

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS      SPECIAL PROGRAMS:17,27,38,
   DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %         %        %          44,
 D MEMBER  ADA   WHITE    TRANS,  STATUS     %       %      NON     GRAD,  6 OR MORE
 A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A  2090  86,8   47,9     0,16     51,5    27,5    33,3    22,0    48,0       70,0       ( 49, 59)
```

East Oak Cliff Subdistrict

Results: Generalizations that can be made from the Performance Profiles include:

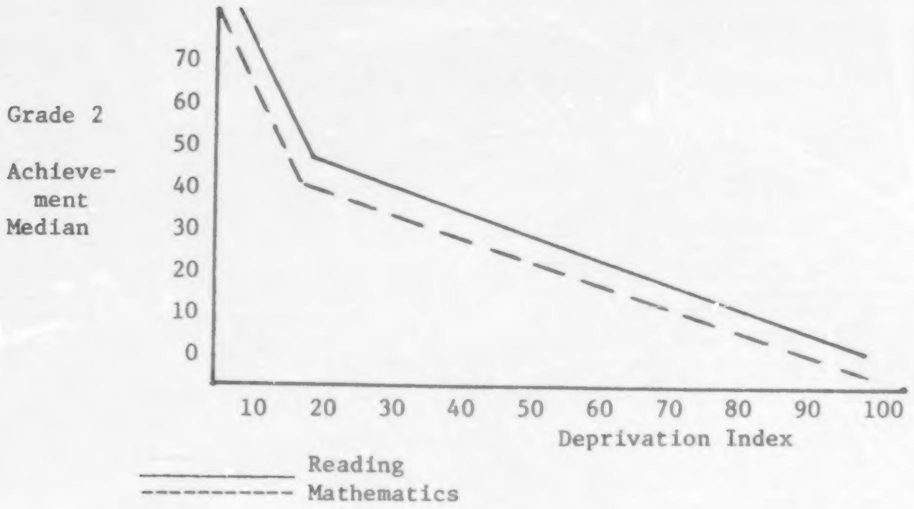
1. Student achievement in reading, language, and mathematics did not generally extend into the upper deciles of the norm distribution. For example, in Grade 2 there was one school having more than 10% of its students in the top large-city decile in reading. However, there were eight schools having more than 20% of their Grade 2 students in the lowest large-city decile in reading. Thus, while diversity of scores was broad, scores were concentrated only in the lower half of the norm distribution (see table below).

Number and Percentage of Schools Having
More than 20% of Their Students
Achieving at the Scale Extremes
(Percentage based on total District)

	Lowest Decile						Highest Decile					
	Read		Lang		Math		Read		Lang		Math	
Grade	N	%	N	%	N	%	N	%	N	%	N	%
2	8	6	12	10	12	10	0	0	0	0	0	0
4	13	16	13	16	14	17	0	0	0	0	0	0
6	14	17	14	17	14	17	0	0	0	0	0	0
8	3	13	3	13	3	13	0	0	0	0	0	0
9	2	9	2	9	0	0	0	0	0	0	0	0
12	2	9	2	9	1	4	0	0	0	0	0	0

2. Student achievement in language, mathematics, and reading was closely related to the various socioeconomic variables reported. For example, it was generally true that the higher the deprivation index, the lower the measured achievement. The following figure illustrates the relationship between deprivation index and achievement. This relationship also holds for percentile parental educational level and achievement (see graph below).

3. Student achievement was closely related to percent minority, percent mobility, and percent attendance. All of these variables were in turn related to the socioeconomic variables.



4. The District's emphasis on reading appears to be achieving results. In almost all schools median reading performance exceeded median language and mathematics performance. This fact generally held for all grade levels in all attendance areas. The exception to this occurred at the ninth and twelfth grade levels in low-achieving schools. At those levels the District does not administer functional-level tests. Therefore, it is hypothesized that inability to read inhibits performance on the language and reading tests much more than on the mathematics tests.

5. Median performance was well below norm in all grades and subtests. Median achievement in reading exceeded that in mathematics in grades 2-8 but not in grades 9 and 12. Median achievement was higher in the lower grades than in the upper grades, relative to grade norms.

6. Achievement data are summarized by attendance area in the following tables. Each of the tables specifies the percent of students by ethnic background from each of the attendance areas who scored at or above the 50th percentile on large-city norms. For Grades 2, 4, 6, and 8 the Iowa Tests of Basic Skills were used. The subtests reported are: vocabulary (V), word analysis or work study (W), reading (R), language (L), and mathematics (M). For Grades 9 and 12 the Iowa Tests of Educational Development were used. The Subtests reported are: reading (R), language (L), mathematics (M), social studies (SS), science (S), and use of sources (U). In addition, the feeder schools comprising each attendance area and their deprivation indices are also reported.

Franklin D. Roosevelt Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	*	*	*	*	*	29	29	34	26	23	14	13	27	0	8
4	*	*	*	*	*	15	16	17	11	11	19	13	7	7	25
6	*	*	*	*	*	10	11	12	7	4	*	*	*	*	*
8	*	*	*	*	*	9	9	10	8	6	0	0	36	18	18

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	*	*	*	*	*	*	5	9	23	9	4	8	*	*	*	*	*	*
12	*	*	*	*	*	*	3	9	8	5	5	8	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

* No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John Neely Bryan	65	65	Albert Sidney Johnston	84	84
W. W. Bushman	77	77	William Brown Miller	69	69
N. W. Harllee	93	93	Roger Q. Mills	73	73

Middle School	Index
Oliver Wendell Holmes	73

In the Roosevelt High School Attendance Area median performance was well below norm in all grades and subtests. Median achievement in reading exceeded that in mathematics in grades 2-8 but not in grades 9 and 12. Median achievement was higher in the lower grades than in the upper grades, relative to grade norms.

South Oak Cliff Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo						Black						MexAm					
Grade	V	W[1]	R	L	M		V	W[1]	R	L	M		V	W[1]	R	L	M	
2	*	*	*	*	*		30	30	34	28	24		27	22	37	19	19	
4	21	29	15	15	14		17	19	19	12	12		16	16	26	13	16	
6	*	*	*	*	*		13	13	17	10	7		21	21	33	25	17	
8	57	57	30	57	40		7	8	9	7	4		3	3	19	10	6	
	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	*	*	*	*	*	*	5	10	22	9	4	7	*	*	*	*	*	*
12	*	*	*	*	*	*	3	9	5	3	3	6	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John Neely Bryan	65	65	T. D. Marshall	56	
W. W. Bushman	77	77	Clara Oliver		62
B. F. Darrell	95		Elisha M. Pease	77	
J. N. Ervin	70	70	Clinton P. Russell		84
Maynard Jackson		84	Erasmo Seguin	65	
Lisbon	89	89	R. L. Thornton	31	31
Thomas L. Marsalis	27	27	Whitney M. Young		75

Middle School	Index
J. N. Ervin	70
Oliver Wendell Holmes	73
Harry Stone	71
Boude Storey	62

In the South Oak Cliff High School Attendance Area median performance was well below norm in all grades and subtests. Median achievement in reading exceeded that in mathematics in grades 2-8 but not in grades 9 and 12. Median achievement was higher in the lower grades than in the upper grades, relative to grade norms.

East Oak Cliff Subdistrict Summary

	R	L	M	SS	S
Grade 2 (Percent minority = 100%, Range of SES = 32-50)					
Percentile rank of median student	26	24	25		
Range of median percentiles over schools	12-56	20-40	15-35		
Grade equivalent of median student	15	14	14		
Gain in median GE within grade 1974-76	1	0	0		
Grade 4 (Percent minority = 99%, Range of SES = 44-50)					
Percentile rank of median student	22	16	6		
Range of median percentiles over schools	14-38	6-39	4-16		
Grade equivalent of median student	27	28	26		
Gain in median GE within grade 1974-76	2	1	0		
Gain in median GE across grades 1974-76	13	14	12		
Expected gain in median GE across grades	12	16	17		
Grade 6 (Percent minority = 100%, Range of SES = 44-50)					
Percentile rank of median student	12	10	4		
Range of median percentiles over schools	6-21	4-26	2-9		
Grade equivalent of median student	39	38	39		
Gain in median GE within grade 1974-76	2	1	1		
Gain in median GE across grades 1974-76	14	11	13		
Expected gain in median GE across grades	16	12	15		
Grade 8 (Percent minority = 99%, Range of SES = 41-59)					
Percentile rank of median student	11	7	5		
Range of median percentiles over schools	5-11	3-9	3-5		
Grade equivalent of median student	50	48	52		
Gain in median GE within grade 1974-76	6	2	1		
Gain in median GE across grades 1974-76	13	11	14		
Expected gain in median GE across grades	10	12	11		
Grade 9 (Percent minority = 100%, Range of SES = 44-48)					
Percentile rank of median student	17	17	37	19	16
Range of median percentiles over schools	17-17	15-17	37-37	19-19	16-16
Grade 12 (Percent minority = 100%, Range of SES = 44-48)					
Percentile rank of median student	7	10	22	10	8
Range of median percentiles over schools	7-8	8-11	22-22	10-13	8-11

Special Programs in DISD Schools

1. Targeted Achievement in Reading Program (TARP)
2. Targeted Achievement in Mathematics Program (TAMP)
3. Multicultural Social Studies Program (MSSP)
4. Community Schools Program
5. Community Involvement Program (CIP)
6. Bilingual Education Component (BEC)
7. Programmed Tutorial Reading Project (PTRP)
8. Reading is Fundamental (RIF)
9. Partners in Reading
10. Advocate/Packet Program
11. Teacher Training Through the Development and Use of Teaching/Learning Packets
12. Emergency School Aid Act (ESAA) Pilot Project
13. Emergency School Aid Act (ESAA) Basic
14. Emergency School Aid Act (ESAA) Special I
15. Special I/Bilingual
16. Emergency School Aid Act (ESAA) Special II
17. Dallas Independent School District's Secondary Reading Program
18. Conceptually Oriented Musicianship Program (COMP)
19. Conceptual Approach to Teaching Science (CATS)
20. Management System
21. Home Education Learning Program (H.E.L.P.)
22. Success Through Strings (STS)
23. Learning Through Piano (LTP)
24. Teaching Art Concepts and Skills (TACS)
25. Fundamental Levels in Physical Skills (FLIPS)
26. Assessment and Accountability Model for Elementary School Guidance
27. Job Placement, Counseling and Follow-up Center
28. K-12 Career Education Infusion
29. Challenging the Gifted Child Project
30. Career Development Program for the Hearing Impaired K-12
31. Bilingual Computer Assisted Instruction
32. Supplementary Spanish Easy Reading Materials Project (SSERM)
33. Parent Education Program (PEP)
34. Creative Arts Curriculum
35. Nutrition Education Program
36. Comprehensive Health Education or Health Education - Skills for Living
37. Environmental Education Program
38. Alternative Science Project
39. Career Oriented Pretechnical Physics Mini-courses
40. Bilingual Education Program (BEP)
41. Indo-Chinese Component
42. Campus Level Planning (CLP)
43. Highlighting Early Learning Problems (HELP)
44. Plan A
45. Project Zero Reject
46. Career Development Centers (CDC)
47. Magnet Schools
48. Academies
49. Vanguard Schools
50. Lincoln High School Renewal Project (LHSRP)
51. Instructional Personnel (Resource Teacher/Instructional Leaders)

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   132 B.F. DARRELL               (KN=03)                                               EAST OAK CLIFF SUBDISTRICT

          SUBTEST:        R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.            14         18                     14         16                    15         14
 M
 E %-ILE RANK                20         48                     24         35                    30         25
 N
 T % > NATL.MED.             28         33                     29          0                    28         33

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %          5, 7, 8, 9,10,18,24,25,
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE     43,44,51.
 A  SHIP                                     MOM     DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   705  91.4  100.0    0.23     49.6    ****    ****     38.0   24.0       38.0

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   242 T. D. MARSHALL             (KN=03)                                               EAST OAK CLIFF SUBDISTRICT

          SUBTEST:        R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2          2          2          2          2          2          2          ?          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.            17         25                     16         33                    16         22
 M
 E %-ILE RANK                41         72                     35         86                    35         64
 N
 T % > NATL.MED.             41         99                     36         99                    29         99

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %          5, 9,18,24,25,43,44,51.
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE
 A  SHIP                                     MOM     DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   649  95.2   99.5    0.16     31.7    ****    ****     [illegible]1.0   45.0       48.0

-----------------------------------------------------------------------------------------------------------------
   191 ELISHA M. PEASE            (KN=03)                                               EAST OAK CLIFF SUBDISTRICT

          SUBTEST:        R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.            14                                14                               14
 M
 E %-ILE RANK                20                                24                               25
 N
 T % > NATL.MED.             31                                20                               25

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %          5, 9,18,19,20,24,25,42,
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE     43,44,51.
 A  SHIP                                     MOM     DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   769  89.6   99.9    0.29     47.2    ****    ****     41.0   27.0       43.0


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   249 ERASMO SEGUIN              (KN=03)                                               EAST OAK CLIFF SUBDISTRICT

          SUBTEST:        R E A D I N G                    L A N G U A G E                  M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
           GRADE:  2          2          2          2          2          2          2          2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.            14         14                     14         14                    13         15
 M
 E %-ILE RANK                20         20                     24         24                    20         30
 N
 T % > NATL.MED.             30         23                     21         15                    15          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON     DAILY     ECON.  POST-HIGH SCHL    %        %        %          5, 7, 9,18,24,25,43,44,
 D MEMBER  ADA   WHITE    TRANS.   STATUS     %       %      NON     GRAD.  6 OR MORE     51.
 A  SHIP                                     MOM     DAD    WHITE  DEGREE  YRS.EXPER.
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A   807  90.8   99.6    0.28     45.6    ****    ****     49.0   23.0       31.0
```

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  114 JOHN NEELY BRYAN          (KN=06)                                              EAST OAK CLIFF SUBDISTRICT

            SUBTEST:        R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:  ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.                17 28 39  24 25                 16 29 37  13 28                 16 28 40  20 26
M
E %=ILE RANK                    41 24 12  70 16                 35 20  8  20 16                 35 10  5  55  6
N
T % > NATL,MED.                 42 18 16  99 50                 29 25 14   0  0                 34 16  7  99 50

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON    DAILY    ECON,  POST-HIGH SCHL    %        %         %         4, 5, 8, 9,24,25,43,44,
D  MEMBER  ADA   WHITE    TRANS.  STATUS     %       %      NON     GRAD.   6 OR MORE    51.
A   SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                       FEEDER SCHOOLS: LOC #'S
A   1225   93,8   99,8     0,15     47,9    ****    ****    50,0    43,0      53,0

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  118 W. W. BUSHMAN             (KN=06)                                              EAST OAK CLIFF SUBDISTRICT

            SUBTEST:        R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:  ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.      18 17 47  14 24 37  12 15 53    11 19 20  14 24 36  16 26 52    25 24 35  14 24 38  10 18 48
M
E %=ILE RANK          48  3 28  20 14  8  12  2 45    13  1  1  24  6  7  35 10 44    77  4  2  25  4  3   8  1 22
N
T % > NATL,MED.        0  0  0  27 10  5  50  0 33     0  0  0  23  8 10   0  0 33    99  0  0  18  8  1   0 50 33

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON    DAILY    ECON,  POST-HIGH SCHL    %        %         %         4, 5, 9,22,23,24,25,43,
D  MEMBER  ADA   WHITE    TRANS.  STATUS     %       %      NON     GRAD.   6 OR MORE    44,51.
A   SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                       FEEDER SCHOOLS: LOC #'S
A   1263   93,8   99,4     0,25     45,2    ****    ****    43,0    23,0      55,0

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  142 J. N. ERVIN               (KN=06)                                              EAST OAK CLIFF SUBDISTRICT

            SUBTEST:        R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:  ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.         24     12 25                           14 28                              26     12 30
M
E %=ILE RANK             14     12 16  8                        24 16  7                            6     15 16  5
N
T % > NATL,MED.           0     15 17 11                        21 20 13                            0     17 10  8

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON    DAILY    ECON,  POST-HIGH SCHL    %        %         %         5, 9,18,24,25,43,44,51,
D  MEMBER  ADA   WHITE    TRANS.  STATUS     %       %      NON     GRAD.   6 OR MORE
A   SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                       FEEDER SCHOOLS: LOC #'S
A    693   91,1   99,9     0,16     51,0    ****    ****    51,0    27,0      51,0


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  150 N. W. HARLLEE             (KN=06)                                              EAST OAK CLIFF SUBDISTRICT

            SUBTEST:        R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
          ETHNICITY:  ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM        ANGLO     BLACK     MEXAM
              GRADE:  2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED.                15 25 35                        16 26 34                        14 26 36
M
E %=ILE RANK                    26 16  6                        35 10  4                        25  6  2
N
T % > NATL,MED.                 29 19  3                        18 18  7                        20  7  1

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY          NON    DAILY    ECON,  POST-HIGH SCHL    %        %         %         5, 7, 8, 9,18,24,25,43,
D  MEMBER  ADA   WHITE    TRANS.  STATUS     %       %      NON     GRAD.   6 OR MORE    44,51.
A   SHIP                                    MOM     DAD    WHITE   DEGREE  YRS.EXPER.
T                                                                                       FEEDER SCHOOLS: LOC #'S
A    502   92,9   99,4     0,27     44,2    ****    ****    44,0    33,0      56,0
```

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  163 ALBERT SIDNEY JOHNSTON   (KN-06)                                   EAST OAK CLIFF SUBDISTRICT

          SUBTEST:          R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.       35      14 24 37  11 22 44       37      14 27 38  10 24 31       39      12 26 37  10 24 31
M
E %-ILE RANK           45      20 14  8  10 10 21       48      24 13 10   9  6  2       52      15  6  3   8  4  1
N
T % > NATL.MED.         0      28 17 17  10  9 14        0      20 15 15   0 10 17       99      16 12  4   0 18 17

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         4, 5, 9,10,21,23,24,25,
D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE    43,44,51.
A  SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A  1090  89.7   99.8    0.22      45.0    ****    ****    44.0    44.0       60.0

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  178 LISBON                   (KN-06)                                   EAST OAK CLIFF SUBDISTRICT

          SUBTEST:          R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.               17 28 39  17                     14 30 36  31                       14 28 40  26
M
E %-ILE RANK                   41 24 12   3                     24 24 10  28                       25 10  5   6
N
T % > NATL.MED.                40 20 15   0                     26 17 20  50                       26 10  9   0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         5, 9,24,25,35,43,44,51,
D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   695  91.8   99.9    0.20      47.6    ****    ****    43.0    51.0       60.0

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  183 THOMAS L. MARSALIS       (KN-06)                                   EAST OAK CLIFF SUBDISTRICT

          SUBTEST:          R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.   18 11 31  20 25 42  17 31 23   16 22 28  17 27 42  14 32 28   18 20 35  16 27 42  18 36 39
M
E %-ILE RANK       48  1  3  58 16 17  41 33  1   35  3  1  40 13 18  24 32  1   46  1  2  35  8  8  46 39  4
N
T % > NATL.MED.    33  0  0  56 16 19  40 25 50   33  0  0  43 11 22  40 50 50   33  0  0  29  5 14  40 50 50

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 3, 8, 9,
   DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %        25,43,44,
D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   572  91.8   96.7    0.08      54.9    ****    ****    43.0    48.0       57.0


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  185 WILLIAM BROWN MILLER     (KN-06)                                   EAST OAK CLIFF SUBDISTRICT

          SUBTEST:          R E A D I N G                 L A N G U A G E            M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM      ANGLO     BLACK     MEXAM
            GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.       24      16 25 39  22             32      16 28 37  25             18      15 27 38  22
M
E %-ILE RANK           14      33 16 [illegible]  10             32      35 16  8   8              1      30  8  3   2
N
T % > NATL.MED.         0      38 16  6   0              0      29 20 12   0              0      26 11  3   0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.   %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY        NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %         5, 9,18,22,23,24,25,43,
D MEMBER  ADA  WHITE    TRANS.   STATUS     %       %     NON     GRAD.  6 OR MORE    44,51.
A  SHIP                                    MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A  1222  87.6   85.3    0.29      48.8    ****    ****    44.0    21.0       38.0
```

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   186 ROGER Q. MILLS            (KN-06)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO     BLACK     MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.               16 27 36                       16 29 35                       15 26 37
 M
 E %-ILE RANK                   33 22  7                       35 20  5                       30  6  3
 N
 T % > NATL.MED.                38 15 13                       32 16 12                       26 12  4

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY      ECON.  POST-HIGH SCHL    %        %        %          4, 5, 9,23,24,25,43,44,
 D MEMBER  ADA  WHITE      TRANS.   STATUS    %      %       NON     GRAD.  6 OR MORE     51.
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A  1232  92.6   99.6     0.20      48.0    ****   ****      42.0    25.0       47.0

-----------------------------------------------------------------------------------------------------------------
   215 ROBERT L. THORNTON        (KN-06)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO     BLACK     MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.        21 35  17 32 44                    28 30  17 34 45                 22 32  16 30 43
 M
 E %-ILE RANK             8  6  41 36 21                    16  1  40 39 26                  2  1  35 16 10
 N
 T % > NATL.MED.          0  0  44 29 20                     0  0  39 34 32                  0  0  29 17 12

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 3, 9,18,
    DAILY         NON     DAILY      ECON.  POST-HIGH SCHL    %        %        %          22,23,25,33,43,44,
 D MEMBER  ADA  WHITE      TRANS.   STATUS    %      %       NON     GRAD.  6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A   810  92.9   99.9     0.14      56.7    ****   ****      48.0    30.0       58.0

-----------------------------------------------------------------------------------------------------------------
   251 MAYNARD JACKSON           (04-06)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO     BLACK     MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  4  6      4  6       4  6       4  6      4  6      4  6       4  6       4  6       4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    41 51      30 41       47      34 78      27 41        39      31 62      28 39        50
 M
 E %-ILE RANK           62 39      30 15       28      39 86      13 16        12      19 64      10  4        29
 N
 T % > NATL.MED.        67  0      28 11        0      33 99      27 19        50      33 99      16  7         0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY      ECON.  POST-HIGH SCHL    %        %        %            5, 8,18,24,25,44,49,51,
 D MEMBER  ADA  WHITE      TRANS.   STATUS    %      %       NON     GRAD.  6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A   648  95.0   99.2     0.28      48.7    ****   ****      48.0    36.0       58.0     (19.)


-----------------------------------------------------------------------------------------------------------------
   189 CLARA OLIVER              (04-06)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
         ETHNICITY:   ANGLO     BLACK      MEXAM      ANGLO     BLACK     MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  4  6      4  6       4  6       4  6      4  6      4  6       4  6       4  6       4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    18         27 39       50      28         28 40        55      17         25 42        55
 M
 E %-ILE RANK         3         22 12       36      16         16 14        50       1          5  8        45
 N
 T % > NATL.MED.      0         20 15       40       0         18 17        60       0         12  9        20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER.   %      %      % AVER.   SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
    DAILY         NON     DAILY      ECON.  POST-HIGH SCHL    %        %        %          5,24,25,44,51.
 D MEMBER  ADA  WHITE      TRANS.   STATUS    %      %       NON     GRAD.  6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS.EXPER.
 T                                                                                       FEEDER SCHOOLS: LOC #'S
 A   617  95.6   99.8     0.13      56.2    ****   ****      48.0    41.0       66.0     (242)
```

```
----------------------------------------------------------------------------------------------------------
  205 CLINTON P. RUSSELL        (04-06)                                          EAST OAK CLIFF SUBDISTRICT

       SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
     ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
         GRADE:   4  6       4  6       4  6        4  6       4  6       4  6       4  6       4  6       4  6
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.  27 19      27 37      24 35       22 32      26 34      30 32      27 22      26 36      29 34
M
E %-ILE RANK      22  1      22  8      14  6        3  2      10  4      24  2       8  1       6  2      13  1
N
T % > NATL.MED.    0 50      18 11      17  8        0 50       8  9      17 17       0  0       7  1       6  8

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %         5,24,25,36,44,51.
D  MEMBER  ADA  WHITE     TRANS.  STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                     MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   673   94.4   98.8     0.22     44.4    ****    ****    34.0    48.0      52.0    (249)

----------------------------------------------------------------------------------------------------------
  250 WHITNEY M. YOUNG          (04-06)                                          EAST OAK CLIFF SUBDISTRICT

       SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
     ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
         GRADE:   4  6       4  6       4  6        4  6       4  6       4  6       4  6       4  6       4  6
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.  36         27 40      24          36         28 41      40         24         28 40      36
M
E %-ILE RANK      48         22 14      14          45         16 16      57          4         10  5      39
N
T % > NATL.MED.    0         20 12       0           0         25 18      67          0         14  7       0

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %         5, 8,24,25,44,51.
D  MEMBER  ADA  WHITE     TRANS.  STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                     MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   488   93.4   99.8     0.22     47.2    ****    ****    48.0    35.0      57.0    (132)

----------------------------------------------------------------------------------------------------------
   65 J. N. ERVIN               (07-08)                                          EAST OAK CLIFF SUBDISTRICT

       SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
     ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
         GRADE:   8          8          8           8          8          8          8          8          8
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.  20         44                     42         42                    40         48
M
E %-ILZ RANK       1          5                      3          3                     1          3
N
T % > NATL.MED.    0          1                      0          5                     0          1

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:28,44,
   DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %
D  MEMBER  ADA  WHITE     TRANS.  STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                     MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A   221   93.3  100.0     0.03     59.3    26.0    29.9    51.0    27.0      51.0    (142)


----------------------------------------------------------------------------------------------------------
   51 OLIVER WENDELL HOLMES     (07-08)                                          EAST OAK CLIFF SUBDISTRIC

       SUBTEST:         R E A D I N G                  L A N G U A G E                M A T H E M A T I C S
     ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
         GRADE:   8          8          8           8          8          8          8          8          8
  SCORE TYPE
 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

  GRD.EQUIV.MED.  85         50         54          82         48         50         76         52         58
M
E %-ILE RANK      69         11         16          62          7          9         50          5         14
N
T % > NATL.MED.   80          9          0          70         10         36         60          6         18

 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
   AVER.    %      %     % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:12,28,44,
   DAILY          NON     DAILY    ECON.  POST-HIGH SCHL    %        %        %         48.
D  MEMBER  ADA  WHITE     TRANS.  STATUS     %       %     NON     GRAD.  6 OR MORE
A  SHIP                                     MOM     DAD   WHITE   DEGREE  YRS.EXPER.
T                                                                                    FEEDER SCHOOLS: LOC #'S
A  2008   92.6   98.6     0.09     42.9    33.7    26.5    53.0    35.0      41.0    (114,118,150,163,185,186)
```

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----------------------------------------------------------------------------------------------------------------
    66 HARRY STONE              (07-08)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:        R E A D I N G               L A N G U A G E               M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  8          8          8          8          8          8          8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,              50         60                    50         60                    52         62
 M
 E %-ILE RANK                  11         25                     9         26                     5         21
 N
 T % > NATL,MED,                5          0                    13         50                     8          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL [illegible]RAMS:14,28,44,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %
 D MEMBER  ADA   WHITE     TRANS,  STATUS     %      %       NON     GRAD,   6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS; LOC #'S
 A    764  92,9  100,0    0,08     40,8    30,8   26,0     58,0    48,0       55,0      (250,251)
----------------------------------------------------------------------------------------------------------------
    60 BOUDE STOREY             (07-08)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:        R E A D I N G               L A N G U A G E               M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  8          8          8          8          8          8          8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    46        50         44         42         47         45         56         52         48
 M
 E %-ILE RANK         7        11          5          3          6          4         10          5          3
 N
 T % > NATL,MED,      0         8          5          0          8         10          0          4          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:12,28,35,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %          44,
 D MEMBER  ADA   WHITE     TRANS,  STATUS     %      %       NON     GRAD,   6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS; LOC #'S
 A   1815  94,1   99,4    0,10     43,4    25,5   20,9     51,0    32,0       48,0      (114,115,178,183,189,205,
                                                                                          215)
----------------------------------------------------------------------------------------------------------------
    13 FRANKLIN D, ROOSEVELT    (09-12)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:        R E A D I N G               L A N G U A G E               M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12       9 12       9 12       9 12       9 12       9 12       9 12
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,
 M
 E %-ILE RANK                17  8      19                    15 11      20                    37 22      16
 N
 T % > NATL,MED,              5  3       0                     9  9       0                    23  8      50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:17,28,35,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %          36,39,44,
 D MEMBER  ADA   WHITE     TRANS,  STATUS     %      %       NON     GRAD,   6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS; LOC #'S
 A   2559  92,4  100,0    0,18     44,2    24,7   18,9     50,0    34,0       54,0      ( 51)


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    16 SOUTH OAK CLIFF          (09-12)                                            EAST OAK CLIFF SUBDISTRICT

           SUBTEST:        R E A D I N G               L A N G U A G E               M A T H E M A T I C S
         ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
             GRADE:  9 12       9 12       9 12       9 12       9 12       9 12       9 12       9 12       9 12
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,
 M
 E %-ILE RANK        24 53      17  7      17  8      47 34      17  8       5 15      37 71      37 22      22 11
 N
 T % > NATL,MED,      0 99       5  3       0  0      50  0      10  9       0  0       0 99      22  5      20  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,    %      %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS:17,28,39,
    DAILY          NON     DAILY     ECON,  POST-HIGH SCHL    %        %        %          42,44,
 D MEMBER  ADA   WHITE     TRANS,  STATUS     %      %       NON     GRAD,   6 OR MORE
 A  SHIP                                     MOM    DAD     WHITE   DEGREE  YRS,EXPER,
 T                                                                                       FEEDER SCHOOLS; LOC #'S
 A   4034  92,4   99,8    0,15     47,6    33,0   29,9     57,0    44,0       60,0      ( 51, 60, 65, 66)
```

Southeast Subdistrict

Results: Generalizations that can be made from the Performance Profiles include:

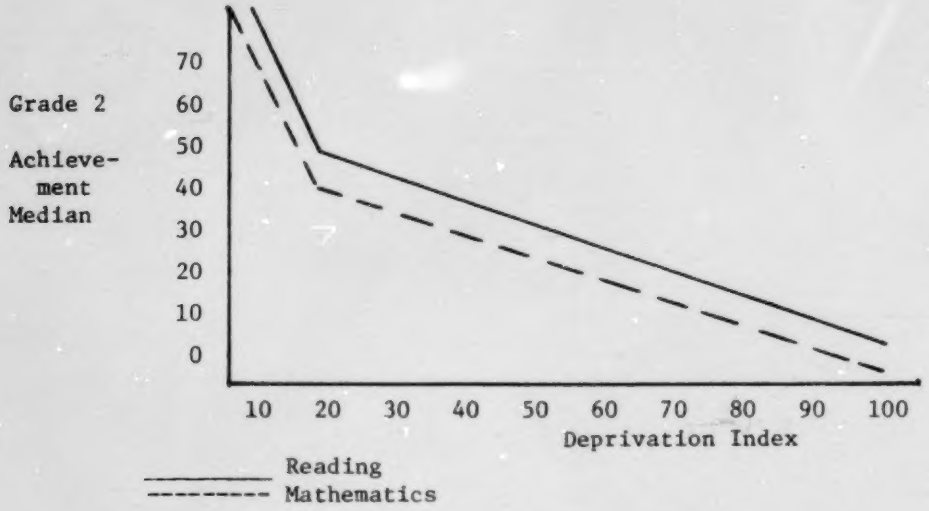
1. Student achievement in reading, language, and mathematics covered the entire spectrum of the norm distribution. For example, in Grade 2 there were two schools having more than 20% of their students in the top large-city decile in reading. However, there were also two schools having more than 20% of their Grade 2 students in the lowest large-city decile in reading. This extreme diversity was not typical of all grades (see table below).

Number and Percentage of Schools Having
More than 20% of Their Students
Achieving at the Scale Extremes
(Percentage based on total District)

	Lowest Decile						Highest Decile					
	Read		Lang		Math		Read		Lang		Math	
Grade	N	%	N	%	N	%	N	%	N	%	N	%
2	2	2	6	5	4	3	2	2	2	2	0	0
4	7	8	10	12	11	13	0	0	0	0	0	0
6	10	12	10	12	11	13	0	0	0	0	0	0
8	5	22	5	22	5	22	0	0	0	0	0	0
9	1	4	2	9	0	0	0	0	0	0	0	0
12	2	9	2	9	0	0	0	0	0	0	0	0

2. Student achievement in language, mathematics, and reading was closely related to the various socioeconomic variables reported. For example, it was generally true that the higher the deprivation index, the lower the measured achievement. The following figure illustrates the relationship between deprivation index and achievement. This relationship also holds for percentile parental educational level and achievement (see graph below).

3. Student achievement was closely related to percent minority, percent mobility, and percent attendance. All of these variables were in turn related to the socioeconomic variables.



4. The District's emphasis on reading appears to be achieving results. In almost all schools median reading performance exceeded median language and mathematics performance. This fact generally held for all grade levels in all attendance areas. The exception to this occurred at the ninth and twelfth grade levels in low-achieving schools. At those levels the District does not administer functional-level tests. Therefore, it is hypothesized that inability to read inhibits performance on the language and reading tests much more than on the mathematics tests.

5. Median Anglo performance was generally above norm in grade 2 and below norm in the remaining grades; median minority performance was below norm in all grades. Across ethnic groups median achievement was consistently higher in reading than in mathematics, except in grade 9, where the opposite was true. Across subtests and ethnic groups median scores were higher in the lower grades than in the upper grades, relative to grade norms.

6. Achievement data are summarized by attendance area in the following tables. Each of the tables specifies the percent of students by ethnic background from each of the attendance areas who scored at or above the 50th percentile on large-city norms. For grades 2, 4, 6, and 8 the Iowa Tests of Basic Skills were used. The subtests reported are: vocabulary (V), word analysis or work study (W), reading (R), language (L), and mathematics (M). For grades 9 and 12 the Iowa Tests of Educational Development were used. The Subtests reported are: reading (R), language (L), mathematics (M), social studies (SS), science (S), and use of sources (U). In addition, the feeder schools comprising each attendance area and their deprivation indices are also reported.

Lincoln Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	52	61	54	48	56	32	27	42	29	27	39	57	41	24	48
4	42	43	37	33	33	9	15	10	8	9	24	29	22	28	19
6	45	40	34	37	30	8	11	9	7	7	18	24	20	18	17
8	39	38	37	37	31	3	4	6	5	5	14	20	19	19	22

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	*	*	*	*	*	*	2	8	20	6	1	6	*	*	*	*	*	*
12	*	*	*	*	*	*	9	15	7	6	7	11	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John Q. Adams	19	56	Joseph J. Rhoads	70	
Annie Webb Blanton	15	56	Charles Rice	93	
Nathaniel Hawthorne	10	56	San Jacinto	36	60
John Ireland	20	59	H. S. Thompson	98	

Middle School	Index
Fred F. Florence	45
John B. Hood	40

In the Lincoln High School Attendance Area median Anglo performance was generally above norm in grade 2 and below norm in the remaining grades; median minority performance was generally below norm in all grades. Across grades and ethnic groups median achievement was not consistently higher in reading than in mathematics. Across subtests and ethnic groups median scores were higher in grade 2 than in the remaining grades, prominently so for black students, relative to grade norms.

W. W. Samuell Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	54	56	57	47	55	29	39	33	27	29	42	48	49	24	43
4	44	44	40	35	34	11	17	15	12	11	23	27	24	23	14
6	45	44	35	36	32	9	12	11	6	6	26	26	25	20	20
8	39	38	37	37	31	3	4	6	5	5	14	20	19	19	22

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	40	43	46	36	31	38	5	13	24	15	7	12	18	24	24	18	18	21
12	43	46	36	32	44	51	4	2	6	15	2	2	15	25	10	10	10	19

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John Q. Adams	19	56	John W. Runyon	11	
Annie Webb Blanton	15	56	San Jacinto	36	60
Nathaniel Hawthorne	10	56	Edward Titche	21	
John Ireland	20	59			

Middle School	Index
Fred F. Florence	45
John B. Hood	40

In the Samuell High School Attendance Area median Anglo performance was generally above norm in grade 2 and below norm in the remaining grades; median minority performance was below norm in all grades. Across ethnic groups median achievement was generally higher in reading than in mathematics, except in grade 9. Across subtests and ethnic groups median scores were higher in grade 2 than in the remaining grades, relative to grade norms, prominently so for black students.

Seagoville Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	63	63	64	47	55	17	17	21	21	25	*	*	*	*	*
4	49	52	38	38	36	13	13	32	10	16	*	*	*	*	*
6	50	46	41	38	28	9	12	12	9	12	14	18	29	29	18
8	36	39	35	42	29	4	5	5	4	4	*	*	*	*	*

	Anglo						Black						MexAm					
Grade	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	25	29	34	24	16	27	8	4	13	19	7	8	*	*	*	*	*	*
12	37	29	30	29	38	39	6	0	0	0	6	13	*	*	*	*	*	*

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
Central		23	Seagoville	24	24
Kleberg	55	55			

In the Seagoville High School Attendance Area median Anglo performance was generally above norm in grade 2 and below norm in the remaining grades; median minority performance was below norm in all grades. Median achievement was higher in reading than in mathematics for Anglo students, except in grade 9; this pattern was less consistent for minority students. Across subtests and ethnic groups median scores were higher in the lower grades than in the upper grades, relative to grade norms.

H. Grady Spruce Attendance Area

Percent of Students Scoring At or Above the Fiftieth Percentile

	Anglo					Black					MexAm				
Grade	V	W[1]	R	L	M	V	W[1]	R	L	M	V	W[1]	R	L	M
2	51	53	53	42	48	30	30	29	26	23	26	27	34	18	30
4	40	40	35	33	31	13	17	21	13	10	16	18	23	14	9
6	39	37	33	33	30	10	11	14	9	6	17	21	20	21	12
8	23	26	22	26	19	6	6	7	7	6	9	13	18	13	10

	R	L	M	SS	S	U	R	L	M	SS	S	U	R	L	M	SS	S	U
9	22	27	32	33	23	28	5	8	20	14	6	9	8	15	23	17	12	18
12	27	30	26	28	33	32	4	8	3	9	5	9	15	18	11	11	11	19

[1] This test measures word analysis skills in Grade 2 and work study skills in Grades 4, 6, and 8.

*No students of this ethnicity took the designated test.

Feeder Schools and Deprivation Indices

Elementary School	K-3	4-6	Elementary School	K-3	4-6
John Q. Adams	19	56	John Ireland	20	59
William M. Anderson	24		Richard Lagow	20	
W. A. Blair	35	35	B. H. Macon	20	
Robert C. Buckner	63		Nancy Moseley	21	
Rufus C. Burleson		56	John W. Runyon	11	
Julius Dorsey	20	56	Rylie		56
Nathaniel Hawthorne	10	56			

Middle School	Index
E. B. Comstock	38
Fred F. Florence	45

In the Spruce High School Attendance Area median performance was generally below norm in all subtests, grades, and ethnic groups. Across ethnic groups median achievement was consistently higher in reading than in mathematics, except in grade 9, where the opposite was true. Across subtests and ethnic groups median scores were higher in the lower grades than in the upper grades, relative to grade norms.

Southeast Subdistrict Summary
Anglo

	R	L	M	SS	S
Grade 2 (Percent of population = 54%)					
Percentile rank of median student	58	46	50		
Range of median percentiles over schools	15-80	20-64	33-64		
Grade equivalent of median student	20	18	19		
Gain in median GE within grade 1974-76	3	1	1		
Grade 4 (Percent of population = 54%)					
Percentile rank of median student	39	32	31		
Range of median percentiles over schools	24-57	16-45	4-46		
Grade equivalent of median student	33	32	34		
Gain in median GE within grade 1974-76	- 2	- 2	- 1		
Gain in median GE across grades 1974-76	16	15	16		
Expected gain in median GE	16	15	19		
Grade 6 (Percent of population = 53%)					
Percentile rank of median student	39	32	25		
Range of median percentiles over schools	15-55	12-44	9-35		
Grade equivalent of median student	51	47	49		
Gain in median GE within grade 1974-76	1	- 1	- 2		
Gain in median GE across grades 1974-76	16	13	14		
Expected gain in median GE	18	15	17		
Grade 8 (Percent of population = 53%)					
Percentile rank of median student	30	28	23		
Range of median percentiles over schools	24-47	17-48	15-40		
Grade equivalent of median student	63	61	63		
Gain in median GE within grade 1974-76	- 4	- 1	- 3		
Gain in median GE across grades 1974-76	13	13	12		
Expected gain in median GE	16	17	16		
Grade 9 (Percent of population = 69%)					
Percentile rank of median student	32	33	44	33	35
Range of median percentiles over schools	30-43	28-42	37-44	33-43	30-35
Grade 12 (Percent of population = 58%)					
Percentile rank of median student	38	39	39	33	40
Range of median percentiles over schools	32-43	31-47	33-39	33-36	32-44

Southeast Subdistrict Summary
Black

	R	L	M	SS	S
Grade 2 (Percent of population = 37%)					
Percentile rank of median student	33	24	25		
Range of median percentiles over schools	20-54	13-46	8-35		
Grade equivalent of median student	16	14	14		
Gain in median GE within grade 1974-76	1	0	0		
Grade 4 (Percent of population = 36%)					
Percentile rank of median student	19	16	6		
Range of median percentiles over schools	14-27	10-32	4-20		
Grade equivalent of median student	26	28	26		
Gain in median GE within grade 1974-76	- 1	0	0		
Gain in median GE across grades 1974-76	11	14	12		
Expected gain in median GE	13	18	18		
Grade 6 (Percent of population = 37%)					
Percentile rank of median student	12	10	4		
Range of median percentiles over schools	7-17	3-24	2-12		
Grade equivalent of median student	39	38	39		
Gain in median GE within grade 1974-76	4	4	1		
Gain in median GE across grades 1974-76	12	10	13		
Expected gain in median GE	17	13	15		
Grade 8 (Percent of population = 37%)					
Percentile rank of median student	9	5	4		
Range of median percentiles over schools	5-16	4- 7	4- 8		
Grade equivalent of median student	48	46	51		
Gain in median GE within grade 1974-76	- 2	- 1	- 3		
Gain in median GE across grades 1974-76	13	12	13		
Expected gain in median GE	10	11	11		
Grade 9 (Percent of population = 34%)					
Percentile rank of median student	19	17	29	24	20
Range of median percentiles over schools	17-30	15-20	29-37	24-28	16-20
Grade 12 (Percent of population = 35%)					
Percentile rank of median student	10	10	22	13	11
Range of median percentiles over schools	6-11	6-14	22-27	13-21	8-14

Southeast Subdistrict Summary
Mexican-American

	R	L	M	SS	S
Grade 2 (Percent of population = 6%)					
Percentile rank of median student	30	24	35		
Range of median percentiles over schools	12-23	17-38	28-38		
Grade equivalent of median student	16	14	16		
Gain in median GE within grade 1974-76	1	0	2		
Grade 4 (Percent of population = 9%)					
Percentile rank of median student	18	16	10		
Range of median percentiles over schools	15-24	7-32	2-19		
Grade equivalent of median student	26	28	28		
Gain in median GE within grade 1974-76	- 4	- 4	- 3		
Gain in median GE across grades 1974-76	11	14	14		
Expected gain [illegible] median GE	13	18	18		
Grade 6 (Percent of population = 9%)					
Percentile rank of median student	17	16	10		
Range of median percentiles over schools	2-31	7-37	3-39		
Grade equivalent of median student	42	41	43		
Gain in median GE within grade 1974-76	- 4	- 2	- 2		
Gain in median GE across grades 1974-76	12	9	12		
Expected gain in median GE	17	15	16		
Grade 8 (Percent of population = 8%)					
Percentile rank of median student	18	17	12		
Range of median percentiles over schools	16-24	11-34	10-30		
Grade equivalent of median student	55	55	57		
Gain in median GE within grade 1974-76	- 2	- 1	- 2		
Gain in median GE across grades 1974-76	9	12	12		
Expected gain in median GE	15	14	13		
Grade 9 (Percent of population = 9%)					
Percentile rank of median student	22	20	29	28	20
Range of median percentiles over schools	19-30	20-28	29-29	28-31	20-25
Grade 12 (Percent of population = 5%)					
Percentile rank of median student	17	26	22	19	14
Range of median percentiles over schools	15-20	9-32	22-27	19-23	14-18

Special Programs in DISD Schools

1. Targeted Achievement in Reading Program (TARP)
2. Targeted Achievement in Mathematics Program (TAMP)
3. Multicultural Social Studies Program (MSSP)
4. Community Schools Program
5. Community Involvement Program (CIP)
6. Bilingual Education Component (BEC)
7. Programmed Tutorial Reading Project (PTRP)
8. Reading is Fundamental (RIF)
9. Partners in Reading
10. Advocate/Packet Program
11. Teacher Training Through the Development and Use of Teaching/Learning Packets
12. Emergency School Aid Act (ESAA) Pilot Project
13. Emergency School Aid Act (ESAA) Basic
14. Emergency School Aid Act (ESAA) Special I
15. Special I/Bilingual
16. Emergency School Aid Act (ESAA) Special II
17. Dallas Independent School District's Secondary Reading Program
18. Conceptually Oriented Musicianship Program (COMP)
19. Conceptual Approach to Teaching Science (CATS)
20. Management System
21. Home Education Learning Program (H.E.L.P.)
22. Success Through Strings (STS)
23. Learning Through Piano (LTP)
24. Teaching Art Concepts and Skills (TACS)
25. Fundamental Levels in Physical Skills (FLIPS)
26. Assessment and Accountability Model for Elementary School Guidance
27. Job Placement, Counseling and Follow-up Center
28. K-12 Career Education Infusion
29. Challenging the Gifted Child Project
30. Career Development Program for the Hearing Impaired K-12
31. Bilingual Computer Assisted Instruction
32. Supplementary Spanish Easy Reading Materials Project (SSERM)
33. Parent Education Program (PEP)
34. Creative Arts Curriculum
35. Nutrition Education Program
36. Comprehensive Health Education or Health Education - Skills for Living
37. Environmental Education Program
38. Alternative Science Project
39. Career Oriented Pretechnical Physics Mini-courses
40. Bilingual Education Program (BEP)
41. Indo-Chinese Component
42. Campus Level Planning (CLP)
43. Highlighting Early Learning Problems (HELP)
44. Plan A
45. Project Zero Reject
46. Career Development Centers (CDC)
47. Magnet Schools
48. Academies
49. Vanguard Schools
50. Lincoln High School Renewal Project (LHSRP)
51. Instructional Personnel (Resource Teacher/Instructional Leaders)

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   108 WILLIAM H, ANDERSON       (KN=03)                                        SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
            GRADE:   2         2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    20        22         18          18        17         14         20        19         14
 M
 E %-ILE RANK        56        65         48          46        40         24         55        50         25
 N
 T % > NATL,MED,     58        80         50          49        40         40         54        60         20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,11,25,
    DAILY        NON     DAILY    ECON,  POST-HIGH SCHL    %       %        %          42,43,44,
 D MEMBER  ADA  WHITE    TRANS,  STATUS     %      %      NON     GRAD,  6 OR MORE
 A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS,EXPER,
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   369  8[illegible],2   18,4     0,22     50,5    ****   ****    30,0   59,0      71,0

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   246 ROBERT C, BUCKNER         (KN=03)                                        SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
            GRADE:   2         2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    14        14         12          17        14         14         16        14         14
 M
 E %-ILE RANK        20        20         12          40        24         24         35        25         25
 N
 T % > NATL,MED,     33        24         19          30        25         14         33        21         23

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
    DAILY        NON     DAILY    ECON,  POST-HIGH SCHL    %       %        %          5, 8, 9,24,25,33,43,44,
 D MEMBER  ADA  WHITE    TRANS,  STATUS     %      %      NON     GRAD,  6 OR MORE     51,
 A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS,EXPER,
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   831  91,5  87,1     0,29     43,1    ****   ****    40,0   23,0      51,0

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   170 RICHARD LAGOW             (KN=03)                                        SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
            GRADE:   2         2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    20        12         21          17        16         18         18        20         16
 M
 E %-ILE RANK        58        12         62          40        35         46         46        55         35
 N
 T % > NATL,MED,     54        50         83          44         0         50         38        99         50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,25,43,
    DAILY        NON     DAILY    ECON,  POST-HIGH SCHL    %       %        %          44,
 D MEMBER  ADA  WHITE    TRANS,  STATUS     %      %      NON     GRAD,  6 OR MORE
 A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS,EXPER,
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   472  78,8   8,2     0,17     53,9    ****   ****    35,0   50,0      65,0


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   180 B, H, MACON               (KN=03)                                        SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                L A N G U A G E              M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM       ANGLO     BLACK      MEXAM      ANGLO     BLACK      MEXAM
            GRADE:   2         2          2           2         2          2          2         2          2
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    19        31         14          16         0         13         17        22         12
 M
 E %-ILE RANK        54        85         20          35        99         20         40        60         15
 N
 T % > NATL,MED,     51        99         17          41        99          0         46        99          0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
    AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
    DAILY        NON     DAILY    ECON,  POST-HIGH SCHL    %       %        %          43,44,
 D MEMBER  ADA  WHITE    TRANS,  STATUS     %      %      NON     GRAD,  6 OR MORE
 A  SHIP                                   MOM    DAD    WHITE  DEGREE  YRS,EXPER,
 T                                                                                   FEEDER SCHOOLS: LOC #'S
 A   264  81,2  13,4     0,13     49,2    ****   ****    27,0   27,0      47,0
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    187 NANCY MOSELEY            (KN=03)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO     BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2         2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED,    19                               17                                 17
  M
  E %=ILE RANK        54                               40                                 40
  N
  T % > NATL,MED,     53                               39                                 44

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,25,43,
     DAILY        NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %        44,
  D MEMBER  ADA  WHITE    TRANS,   STATUS     %       %      NON     GRAD,  6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A   351  80,9    3,7    0,18     49,5     ****    ****     29,0    29,0      64,0

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    200 JOSEPH J, RHOADS         (KN=03)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO     BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2         2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED,    12         17                    13         14                      16        14
  M
  E %=ILE RANK        12         41                    20         24                      35        25
  N
  T % > NATL,MED,      0         41                     0         27                       0        25

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY        NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %        5, 9,19,24,25,43,44,51,
  D MEMBER  ADA  WHITE    TRANS,   STATUS     %       %      NON     GRAD,  6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A   432  93,1   99,8    0,24     43,4     ****    ****     43,0    43,0      57,0

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    201 CHARLES RICE             (KN=03)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO     BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2         2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED,               19                               18                                16
  M
  E %=ILE RANK                   54                               46                                35
  N
  T % > NATL,MED,                53                               48                                32

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY        NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %        4, 5, 9,24,25,43,44,51,
  D MEMBER  ADA  WHITE    TRANS,   STATUS     %       %      NON     GRAD,  6 OR MORE
  A  SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
  T                                                                                       FEEDER SCHOOLS: LOC #'S
  A   497  92,9  100,0    0,13     45,1     ****    ****     48,0    30,0      52,0


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    237 JOHN W, RUNYON           (KN=03)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E               M A T H E M A T I C S
        ETHNICITY:   ANGLO     BLACK      MEXAM        ANGLO      BLACK      MEXAM        ANGLO     BLACK      MEXAM
            GRADE:  2          2          2            2          2          2            2         2          2
    SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD,EQUIV,MED,    22         14         20         17         17         14           18        14         18

    %=ILE RANK        65         20         58         40         40         24           46        25         46

  T % > NATL,MED,     56         29         60   [illegible]1     43         30           46         0         50

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER,   %     %      % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,23,25,
     DAILY        NON     DAILY    ECON,   POST-HIGH SCHL     %        %        %        43,44,
    MEMBER  ADA  WHITE    TRANS,   STATUS     %       %      NON     GRAD,  6 OR MORE
     SHIP                                    MOM     DAD    WHITE   DEGREE  YRS,EXPER,
                                                                                          FEEDER SCHOOLS: LOC #'S
      359  84,2   18,4    0,11     55,7     ****    ****     36,0    43,0      64,0
```

```
-------------------------------------------------------------------------------------------------------
  214 H. S. THOMPSON          (KN=03)                                          SOUTHEAST SUBDISTRICT

        SUBTEST:        R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
      ETHNICITY:   ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
          GRADE:  2          2         2         2         2         2         2         2         2
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.             16                            13                            12
M
E %-ILE RANK                 33                            20                            15
N
T % > NATL.MED.              31                            12                            21

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY         NON     DAILY    ECON.   POST-HIGH SCHL    %       %        %          4, 5, 8, 9,10,18,19,20,
D MEMBER  ADA  WHITE     TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE    22,23,24,25,43,44,51.
A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
T                                                                                     FEEDER SCHOOLS: LOC #'S
A   512  88.4  100.0    0.10     40.0    ****   ****     46.0   42.0      62.0

-------------------------------------------------------------------------------------------------------
  216 EDWARD TITCHE           (KN=03)                                          SOUTHEAST SUBDISTRICT

        SUBTEST:        R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
      ETHNICITY:   ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
          GRADE:  2          2         2         2         2         2         2         2         2
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.  19         9         23        17        [illegible] 18      18        11        14
M
E %-ILE RANK      54         6         68        46        7         46        46        12        25
N
T % > NATL.MED.   52         0         67        47        20        33        50        0         0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,11,23,
   DAILY         NON     DAILY    ECON.   POST-HIGH SCHL    %       %        %        25,41,43,44.
D MEMBER  ADA  WHITE     TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE
A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
T                                                                                     FEEDER SCHOOLS: LOC #'S
A   255  86.0   22.2    0.32     52.5    ****   ****     36.0   55.0      64.0

-------------------------------------------------------------------------------------------------------
  208 SEAGOVILLE              (KN=04)                                          SOUTHEAST SUBDISTRICT

        SUBTEST:        R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
      ETHNICITY:   ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
          GRADE:  2 4        2 4       2 4       2 4       2 4       2 4       2 4       2 4       2 4
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.  25 39      16 25     17 21     20 36     16 30     17 28     20 36     16 30     20 26
M
E %-ILE RANK      72 57      33 16     41  8     64 45     35 24     40 16     55 39     35 16     55  6
N
T % > NATL.MED.   70 57      31 14     43  0     53 43     31 41     29 50     60 42     38 18     86  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,25,43,
   DAILY         NON     DAILY    ECON.   POST-HIGH SCHL    %       %        %        44.
D MEMBER  ADA  WHITE     TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE
A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
T                                                                                     FEEDER SCHOOLS: LOC #'S
A   680  84.7   18.5    0.19     55.0    ****   ****     35.0   38.0      69.0


-------------------------------------------------------------------------------------------------------
  101 JOHN Q. ADAMS           (KN=06)                                          SOUTHEAST SUBDISTRICT

        SUBTEST:        R E A D I N G                 L A N G U A G E              M A T H E M A T I C S
      ETHNICITY:   ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM     ANGLO     BLACK     MEXAM
          GRADE:  2  4  6  2  4  6  2  4  6  2  4  6  2  4  6  2  4  5  2  4  6  2  4  6  2  4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD.EQUIV.MED.  23 35 50  17 24 38  13 28 38  18 32 46  16 26 34  16 30 39  18 34 49  15 24 38  16 31 41
M
E %-ILE RANK      68 45 36  41 14 10  15 24 10  46 32 29  35 10  4  35 24 12  46 31 25  30  4  3  35 19  6
N
T % > NATL.MED.   56 45 38  50 15 12  44 30 18  49 35 31  50 11  7  25 22 18  44 32 29  33 10  8  25 13 17

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER.    %     %      % AVER.  SOCIO-  PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
   DAILY         NON     DAILY    ECON.   POST-HIGH SCHL    %       %        %          5, 6, 9,14,15,22,23,24,
D MEMBER  ADA  WHITE     TRANS.  STATUS     %      %       NON    GRAD.  6 OR MORE    25,43,44,51.
A  SHIP                                    MOM    DAD     WHITE  DEGREE  YRS.EXPER.
T                                                                                     FEEDER SCHOOLS: LOC #'S
A  1138  89.5   38.8    0.22     51.4    ****   ****     33.0   47.0      73.0        (104,214)
```

```
-------------------------------------------------------------------------------------------------------------
  109 W. A. BLAIR                (KN-06)                                                SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E              M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.  13 28 41  14 27 41  14 27 39   13 28 38  14 28 41  11 31 38   15 24 43  13 26 42  16 24 39
 M
 E %-ILE RANK      15 24 15  20 22 15  20 22 12   20 16 10  24 16 16  13 28 10   30  4 10  20  6  8  35  4  4
 N
 T % > NATL.MED.   23 20 19  31 21 15  29 19  0   20 28 18  25 30 19   0 44  8   38 19 19  19 10  5  21 13  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 9,25,43,
     DAILY          NON      DAILY     ECON.   POST-HIGH SCHL     %        %         %       44.
   D MEMBER  ADA   WHITE     TRANS.   STATUS      %       %      NON     GRAD.   6 OR MORE
   A SHIP                                        MOM     DAD    WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS: LOC #'S
   A   852  86.2   67.8      0.31      46.9     ****    ****     39.0    42.0      68.0

-------------------------------------------------------------------------------------------------------------
  110 ANNIE WEBB BLANTON         (KN-06)                                                SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E              M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.  24 34 56  17 29 40  19 24 50   20 35 49  13 32 35  13 23 44   22 37 51  10 30 38  17 26 49
 M
 E %-ILE RANK      70 42 53  41 27 14  54 14 36   56 42 37  20 32  5  20  4 24   64 43 32   8 16  3  40  6 25
 N
 T % > NATL.MED.   66 48 52   0 28 21  63 22 20   52 45 39   0 28 18  13 22 40   65 42 35  50 20  0  38 11 20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY     ECON.   POST-HIGH SCHL     %        %         %       5, 9,14,22,23,24,25,43,
   D MEMBER  ADA   WHITE     TRANS.   STATUS      %       %      NON     GRAD.   6 OR MORE   44,51.
   A SHIP                                        MOM     DAD    WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS: LOC #'S
   A   706  88.8   28.0      0.18      55.3     ****    ****     35.0    31.0      79.0     (139)

-------------------------------------------------------------------------------------------------------------
  137 JULIUS DORSEY              (KN-06)                                                SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E              M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.  28 29 51  14 26 40     25 41   20 28 50  14 27 44     24 36   20 32 47  15 29 41     25 39
 M
 E %-ILE RANK      79 27 39  20 19 14     16 15   64 16 40  24 13 24      6  7   55 23 19  30 13  6      5  4
 N
 T % > NATL.MED.   76 25 41  17 17 12      7 25   54 16 39  25 13 35      7 25   55 23 37  17 13  8     14 17

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY     ECON.   POST-HIGH SCHL     %        %         %       5, 6, 8, 9,14,15,23,24,
   D MEMBER  ADA   WHITE     TRANS.   STATUS      %       %      NON     GRAD.   6 OR MORE   25,43,44,51.
   A SHIP                                        MOM     DAD    WHITE   DEGREE  YRS.EXPER.
   T                                                                                      FEEDER SCHOOLS: LOC #'S
   A   501  85.1   40.3      0.32      55.5     ****    ****     27.0    36.0      55.0     (246)


-------------------------------------------------------------------------------------------------------------
  156 NATHANIEL HAWTHORNE        (KN-06)                                                SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E              M A T H E M A T I C S
       ETHNICITY:   ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
           GRADE:  2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6    2  4  6   2  4  6   2  4  6
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.   2 36 53     25 39   3 25 49   18 33 46     29 38  18 32 46   20 33 52     26 38  16 27 40

   %-ILE RANK      65 48 45     16 12   1 16 33   46 36 35     20 10  46 32 29   55 27 35      6  3  35  6  5

   % > NATL.MED.   61 47 45     20 10   0 23 40   49 43 33     27 12   0 31 [illegible]   60 35 38     16  6   0  0 30

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY     ECON.   POST-HIGH SCHL     %        %         %       5, 9,14,22,23,24,25,43,
     MEMBER  ADA   WHITE     TRANS.   STATUS      %       %      NON     GRAD.   6 OR MORE   44,51.
     SHIP                                        MOM     DAD    WHITE   DEGREE  YRS.EXPER.
                                                                                          FEEDER SCHOOLS: LOC #'S
       689  89.7   36.6      0.18      55.8     ****    ****     25.0    54.0      71.0     (139,237)
```

```
------------------------------------------------------------------------------------------------------------------
   161 JOHN IRELAND               (KN-06)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    19 35 51  14 25 39  17 25 42    17 35 48  13 26 38  17 27 48    21 34 51  16 24 38  20 22 46
 M
 E %-ILE RANK        54 45 39  20 16 12  41 16 17    40 42 35  20 10 10  40 13 35    60 31 32  35  4  3  55  2 16
 N
 T % > NATL.MED.     51 48 46  36 10 11  44 11 31    39 43 39  18  8 15  22 22 31    71 33 33  36  3  8  78 12 15

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY      ECON.   POST-HIGH SCHL     %         %        %        5, 9,14,22,23,24,25,43,
   D MEMBER  ADA   WHITE     TRANS.    STATUS     %       %       NON      GRAD.   6 OR MORE   44,51.
   A SHIP                                        MOM     DAD     WHITE    DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   853  86.6   42.3      0.21      50.4     ****    ****      34.0     34.0      68.0     (180,214)

------------------------------------------------------------------------------------------------------------------
   207 SAN JACINTO                (KN-06)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    21 29 50  13 24 36  11 37 37    20 30 48  13 26 33  13 25 34    22 34 50  18 26 36  20 32 44
 M
 E %-ILE RANK        62 27 42  15 14  7  10 51  8    56 24 35  20 10  3  20  8  4    64 31 29  46  6  2  55 23 12
 N
 T % > NATL.MED.     54 36 38  44 17 10  25 [illegible] 30    56 35 33  33 10  9  25 25 10    64 33 28  44 10  5  75 50 20

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY      ECON.   POST-HIGH SCHL     %         %        %        5, 9,14,23,24,25,41,43,
   D MEMBER  ADA   WHITE     TRANS.    STATUS     %       %       NON      GRAD.   6 OR MORE   44.
   A SHIP                                        MOM     DAD     WHITE    DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   915  90.3   48.7      0.31      50.0     ****    ****      35.0     45.0      60.0     (200,216)

------------------------------------------------------------------------------------------------------------------
   167 KLEBERG                    (KN-06)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:   2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6     2  4  6   2  4  6   2  4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    17 32 43  14 25 39  11 32 34    14 31 40  11 27 39   5 43 34    18 32 42  10 24 44   9 40 45
 M
 E %-ILE RANK        41 36 19  20 16 12  10 36  5    24 28 14  13 13 12   1 64  4    46 23  8   8  4 12   6 55 14
 N
 T % > NATL.MED.     49 40 21   9 11  0   0  0  0    32 25 24   9 11  0   0 99  0    41 20 15   9 11  5   0 99  0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY      ECON.   POST-HIGH SCHL     %         %        %        5, 9,10,24,25,43,44,51.
   D MEMBER  ADA   WHITE     TRANS.    STATUS     %       %       NON      GRAD.   6 OR MORE
   A SHIP                                        MOM     DAD     WHITE    DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   349  92.5   28.7      0.19      50.8     ****    ****      29.0     59.0      59.0


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   117 RUFUS C. BURLESON          (04-06)                                                    SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM       ANGLO      BLACK      MEXAM
            GRADE:   4  6       4  6       4  6        4  6       4  6       4  6        4  6       4  6       4  6
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD.EQUIV.MED.    33 49      24 35      24 48       34 50      29 40      30 47       34 47      28 40      29 47
 M
 E %-ILE RANK        39 33      14  6      14 31       39 40      20 14      24 32       31 19      10  5      13 19
 N
 T % > NATL.MED.     35 35      15 12      17 41       38 39      27 12      21 29       31 26       6  3       8 12

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.    %      %       % AVER.   SOCIO-   PARENTAL EDUC.   TEACHER CHARACTERISTICS    SPECIAL PROGRAMS: 1, 2, 3,
     DAILY          NON      DAILY      ECON.   POST-HIGH SCHL     %         %        %        5,14,15,24,25,44,51,
   D MEMBER  ADA   WHITE     TRANS.    STATUS     %       %       NON      GRAD.   6 OR MORE
   A SHIP                                        MOM     DAD     WHITE    DEGREE  YRS.EXPER.
   T                                                                                        FEEDER SCHOOLS: LOC #'S
   A   437  90.7   49.2      0.23      50.4     ****    ****      30.0     40.0      75.0     (187,246)
```

```
------------------------------------------------------------------------------------------------------------------------
  254 RYLIE                        (04-06)                                                      SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM         ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:   4  6        4  6        4  6          4  6       4  6        4  6         4  6       4  6        4  6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,    33 44       28 37       25 29         32 42      28 41       27 40        34 47      26 39       28 38
M
E %-ILE RANK        39 21       24  8       16  2         32 18      16 16       13 14        31 19       6  4       10  3
N
T % > NATL,MED,     41 27       23  8       18  0         30 29      28 12       18  5        33 27      14  1        5  0

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %       % AVER,  SOCIO-  PAPENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS: 1, 2, 3,
   DAILY          NON      DAILY    ECON,   POST-HIGH SCHL     %        %        %         5,14,24,25,26,42,44,51,
D  MEMBER  ADA   WHITE     TRANS,   STATUS     %       %      NON     GRAD,   6 OR MORE
A  SHIP                                       MOM     DAD    WHITE   DEGREE  YRS,EXPER,
T                                                                                           FEEDER SCHOOLS; LOC #'S
A   675   92,3   43,7      0,13     53,5      ****    ****    34,0    41,0       59,0       (170,246)

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  126 CENTRAL                      (05-06)                                                      SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM         ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:   6           6           6             6          6           6            6          6           6
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,    57          42          48            52         44          49           52         42          53
M
E %-ILE RANK        55          17          31            44         24          37           35          8          39
N
T % > NATL,MED,     54          31          23            46         31          38           32         23          23

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %       % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:25,44,
   DAILY          NON      DAILY    ECON,   POST-HIGH SCHL     %        %        %
D  MEMBER  ADA   WHITE     TRANS,   STATUS     %       %      NON     GRAD,   6 OR MORE
A  SHIP                                       MOM     DAD    WHITE   DEGREE  YRS,EXPER,
T                                                                                           FEEDER SCHOOLS; LOC #'S
A   281   94,6   20,8      0,07     59,6      ****    ****    25,0    42,0       92,0       (208)

------------------------------------------------------------------------------------------------------------------------
  67 PEARL C, ANDERSON             (07-08)                                                      SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM         ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:   8           8           8             8          8           8            8          8           8
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,    46          44                        67         46                       54         50
M
E %-ILE RANK         7           5                        39          5                        8          4
N
T % > NATL,MED,     13           4                        38         12                       14          5

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %       % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:44,48,
   DAILY          NON      DAILY    ECON,   POST-HIGH SCHL     %        %        %
D  MEMBER  ADA   WHITE     TRANS,   STATUS     %       %      NON     GRAD,   6 OR MORE
A  SHIP                                       MOM     DAD    WHITE   DEGREE  YRS,EXPER,
T                                                                                           FEEDER SCHOOLS; LOC #'S
A   285   90,0   95,8      0,47     *****     ****    ****    66,0    50,0       77,0


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  45 E, B, COMSTOCK                (07-08)                                                      SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                       L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM         ANGLO      BLACK       MEXAM        ANGLO      BLACK       MEXAM
           GRADE:   8           8           8             8          8           8            8          8           8
  SCORE TYPE
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  GRD,EQUIV,MED,    59          50          54            55         46          54           59         52          57

  %-ILE RANK        23          11          16            17          5          15           15          5          12

  % > NATL,MED,     25           8          13            23          8          20           18          7           9

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,    %      %       % AVER,  SOCIO-  PARENTAL EDUC,  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:12,44,
   DAILY          NON      DAILY    ECON,   POST-HIGH SCHL     %        %        %
   MEMBER  ADA   WHITE     TRANS,   STATUS     %       %      NON     GRAD,   6 OR MORE
   SHIP                                       MOM     DAD    WHITE   DEGREE  YRS,EXPER,
                                                                                            FEEDER SCHOOLS; LOC #'S
   1330   90,7   49,5      0,16     40,6      19,0    16,7    40,0    37,0       61,0       (101,109,117,137,161,254)
```

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-----------------------------------------------------------------------------------------------------------------
   46 FRED F, FLORENCE            (07-08)                                               SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   8          8           8          8          8          8          8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    41         48          55         56         44         51         60         50         56
 M
 E %-ILE RANK        26         9           18         19         4          11         17         4          10
 N
 T % > NATL,MED,     27         4           13         22         6          14         20         5          13

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,   %      %      % AVER,  SOCIO-   PARENTAL EDUC,   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:14,44,
   DAILY          NON    DAILY    ECON,    POST-HIGH SCHL   %       %       %
 D MEMBER  ADA    WHITE  TRANS,   STATUS   %      %         NON     GRAD,   6 OR MORE
 A SHIP                                    MOM    DAD       WHITE   DEGREE  YRS.EXPER,
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A 1247    89,3   43,9   0,20     46,9     20,0   19,3      31,0    40,0    51,0        (101,110,156,161,207,237)

-----------------------------------------------------------------------------------------------------------------
   52 JOHN B, HOOD                (07-08)                                               SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   8          8           8          8          8          8          8          8          8
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    72         50          59         72         48         64         71         52         66
 M
 E %-ILE RANK        47         11          23         48         7          34         40         5          30
 N
 T % > NATL,MED,     48         4           31         50         6          27         41         4          36

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,   %      %      % AVER,  SOCIO-   PARENTAL EDUC,   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:14,36,44,
   DAILY          NON    DAILY    ECON,    POST-HIGH SCHL   %       %       %
 D MEMBER  ADA    WHITE  TRANS,   STATUS   %      %         NON     GRAD,   6 OR MORE
 A SHIP                                    MOM    DAD       WHITE   DEGREE  YRS.EXPER,
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A 1371    91,1   44,9   0,21     51,3     22,6   27,6      40,0    47,0    75,0        (110,156,161,207,209,232)

-----------------------------------------------------------------------------------------------------------------
   15 SEAGOVILLE                  (07-12)                                               SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   8 9 12     8 9 12      8 9 12     8 9 12     8 9 12     8 9 12     8 9 12     8 9 12     8 9 12
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,    63         53          55         63         46         46         62         54         56
 M
 E %-ILE RANK        30 30 41   15 30 8     18 19 10   32 30 38   5 15 12    5 15 27    21 37 39   8 29 22    10 16 22
 N
 T % > NATL,MED,     39 25 37   5 8 6       13 0 0     35 29 29   5 4 0      13 0 0     29 34 30   4 13 0     25 17 0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,   %      %      % AVER,  SOCIO-   PARENTAL EDUC,   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:17,39,44,
   DAILY          NON    DAILY    ECON,    POST-HIGH SCHL   %       %       %
 D MEMBER  ADA    WHITE  TRANS,   STATUS   %      %         NON     GRAD,   6 OR MORE
 A SHIP                                    MOM    DAD       WHITE   DEGREE  YRS.EXPER,
 T                                                                                      FEEDER SCHOOLS: LOC #'S
 A 1063    93,2   21,1   0,12     47,4     13,3   19,5      18,0    53,0    65,0        (167,126)


-----------------------------------------------------------------------------------------------------------------
   9 LINCOLN                      (09-12)                                               SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                   L A N G U A G E                M A T H E M A T I C S
        ETHNICITY:   ANGLO      BLACK       MEXAM      ANGLO      BLACK      MEXAM      ANGLO      BLACK      MEXAM
            GRADE:   9 12       9 12        9 12       9 12       9 12       9 12       9 12       9 12       9 12
   SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

   GRD,EQUIV,MED,

   %-ILE RANK        17 36      17 10       54         39 6       15 11      78         37 27      29 22      44

   % > NATL,MED,     0 0        2 9         99         0 0        8 15       99         0 0        20 7       0

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
   AVER,   %      %      % AVER,  SOCIO-   PARENTAL EDUC,   TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:17,39,44,
   DAILY          NON    DAILY    ECON,    POST-HIGH SCHL   %       %       %             50,
   MEMBER  ADA    WHITE  TRANS,   STATUS   %      %         NON     GRAD,   6 OR MORE
   SHIP                                    MOM    DAD       WHITE   DEGREE  YRS.EXPER,
                                                                                        FEEDER SCHOOLS: LOC #'S
   1173    92,0   99,6   0,26     42,4     20,5   21,1      50,0    34,0    37,0        ( 46, 50, 52)
   16 W. W. SAMUELL            (09-12)                                                         SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO       BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK       MEXAM
            GRADE:   9 12        9 12        9 12        9 12        9 12        9 12        9 12        9 12        9 12
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.
  M
  E %-ILE RANK       43 43       17  6       30 20       42 47       20  6       28 31       44 39       37 27       29 27
  N
  T % > NATL.MED.    40 43        5  4       18 15       43 46       13  2       24 25       46 36       24  6       24 10

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.     %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:13,30,36,
     DAILY           NON     DAILY     ECON.   POST-HIGH SCHL    %        %        %         39,44,
   D MEMBER   ADA   WHITE    TRANS.   STATUS      %      %      NON     GRAD.   6 OR MORE
   A SHIP                                        MOM    DAD    WHITE   DEGREE  YRS.EXPER.
   T                                                                                       FEEDER SCHOOLS; LOC #'S
   A 2076   88,5   19,1     0,15     56,1     20,0   24,5     23,0    46,0       62,0      ( 46, 52)


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   17 H. GRADY SPRUCE          (09-12)                                                         SOUTHEAST SUBDISTRICT

          SUBTEST:          R E A D I N G                    L A N G U A G E                 M A T H E M A T I C S
        ETHNICITY:   ANGLO       BLACK       MEXAM       ANGLO       BLACK       MEXAM       ANGLO       BLACK       MEXAM
            GRADE:   9 12        9 12        9 12        9 12        9 12        9 12        9 12        9 12        9 12
  SCORE TYPE
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

    GRD.EQUIV.MED.
  M
  E %-ILE RANK       30 32       19 11       19 15       28 31       17 10       20  8       37 33       37 22       29 22
  N
  T % > NATL.MED.    22 27        5  4        8 15       27 30        8  8       15 18       32 26       20  3       23 [illegible]

 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
     AVER.     %      %      % AVER.  SOCIO-   PARENTAL EDUC.  TEACHER CHARACTERISTICS     SPECIAL PROGRAMS:13,35,38,
     DAILY           NON     DAILY     ECON.   POST-HIGH SCHL    %        %        %         39,44,46,
   D MEMBER   ADA   WHITE    TRANS.   STATUS      %      %      NON     GRAD.   6 OR MORE
   A SHIP                                        MOM    DAD    WHITE   DEGREE  YRS.EXPER.
   T                                                                                       FEEDER SCHOOLS; LOC #'S
   A 2698   92,0   41,1     0,15     43,9     21,1   19,7     26,0    47,0       62,0      ( 45, 46)
```

Additional Information:

IR77-008-9-9 Norm-referenced Performance Profiles, 1976-77, 1977, Susan J. Whitmore, James A. Meier.

76-814 through 76-833 Performance Profiles, 1976, George H. Olson, James A. Meier.

76-810 Measurement Profiles, 1975-76, 1976, George H. Olson, James A. Meier, 62 pages.

75-628 Measurement Profiles 1974-75, 1975, William J. Webster, Babs Fulbright, 130 pages.

74-302 Dallas Independent School District Management Profiles Spring Testing Supplement, Grade 12, 1974, Richard E. Mallett, 115 pages.

74-246 Dallas Independent School District Management Profiles, I-IV, 1973-74, Richard E. Mallett, 6 Volumes, 3477 pages.

73-127 Dallas Independent School District Measurement Profiles, 1973, Robert L. Mendro, 5 Volumes, 3659 pages.

72-44 Dallas Independent School District Measurement Profiles, 1972, Clinton C. Schuhmacher, 10 Volumes, 277 pages.

IR77-019-3-5

Abstract

Teacher Profiles, 1976-77

Evaluator: George H. Olson
With the assistance of Rande Smedley, Glenna Taite, and
Sue Ann Smith

Overview: Data describing the characteristics of the District's teachers are reported each year along with the system-wide reports on student achievement. Usually these data can be used by District management in interpreting differences among schools in median achievement and, thus, can potentially affect decision-making with respect to the allocation of teacher resources.

Purpose: The purpose of conducting this study was two-fold: First, to produce summary, descriptive statistics to be included as part of the Performance Profiles (IR77-008) and Measurement Profiles (IR77-006), and second to compile a more detailed report of teacher characteristics data by subdistrict and school.

Population: The population researched in this study consisted of all DISD classroom teachers. Teachers were identified by employee status and job code as given on the District's personnel database as of December, 1976. All personnel having an employee status code of "1" or "2," and a job code of 598 to 610, 612 to 616, 618, 619, or 640-671 were defined as teachers for this study.

Design: A magnetic tape extract of the District's personnel database was obtained from the Region X Service Center in December of 1976. From the extract, all records of personnel meeting the status and job code requirements listed above were selected. The data on these records were then checked for accuracy and completeness, and then compiled in several ways to meet the requirements of the major evaluation questions.

Major Evaluation Questions: Before proceeding to the evaluation questions it should be pointed out that in the original plan for this study we intended to attempt some higher-order analyses of these data with the hopes of relating the affects of teacher characteristics on student achievement. Two problems prevented us from completing this state of the analysis. The first problem was a logistical one, the data were not available in any form that would make the study practical. The requirements were that teachers be identified according to the students they instruct. Although these data are available, on the District's computerized database for secondary schools, they are not readily available for the elementary schools. In elementary schools, these data are on record only within the files of each individual school.

The second problem was more philosophical than logistical. Even if the necessary data were available, we concluded that for this particular year, any disclosed relationship between teacher characteristics data, as input variables, and student achievement, as output variables, would be virtually impossible to interpret. Recall that the main source of achievement data, standardized test scores, was administered early in the fall -- too early for any important teacher variables to have had a measurable effect. Although in previous years it might have been possible to examine the "general" effects of a school's faculty on student achievement over a couple or three years, this was precluded this year, in the intermediate grades (4 and 6), by the court-ordered desegregation plan which forced the reallocation of large numbers of students and faculty. Thus, any differences in achievement which might be attributed to differences in teacher characteristics would have had to have been attributed to the faculties of the schools these children were in the previous year. The tracking problems which would have been encountered in attempting to trace students back to the teachers they matriculated under a year ago were unfeasible.

The questions asked of this study were the following:

1. How are the District's teachers distributed according to age, sex, ethnicity, and experience?
2. In the District's secondary schools, what was the extent of agreement between teacher certification and teacher assignment?
3. What is the rate of teacher mobility within the District?
4. What was the average amount of leave used this year by teachers?

Results: Ethnic distributions of teachers within subdistricts are summarized in Table 1. Seagoville had the highest percentage of White teachers and, along with the Northeast Subdistrict, the smallest percentage Black teachers. The District's Mexican-American teachers tended to be concentrated in the Northwest and Southwest Subdistricts (66% of the population of Mexican-American teachers).

TABLE 1

Distribution of Teachers by
Ethnicity Within Subdistrict

	Percent			
	White	Black	Mex-Am	Other
NW	67.28	24.56	7.71	0.46
NE	70.06	25.74	3.92	0.28
SE	65.11	31.94	2.95	0.00
SW	65.79	28.34	5.79	0.08
EOC	52.16	46.25	1.32	0.27
SEAG	75.00	25.00	0.00	0.00
DISD	64.76	30.48	4.52	0.23

The average teacher in the DISD is 38.5 years old. The median age is a couple of years younger (36) indicating a greater concentration of teachers among the lower age categories. As a group, teachers in the East Oak Cliff area are the youngest by at least two years (Table 2). This subdistrict also had the highest percentage of teachers with the fewest years of experience (Table 3).[1]

TABLE 2

Mean, Median, and Standard Deviation of Teacher Age Within Subdistrict

	Mean	Median	SD
NW	39.41	36	12.18
NE	39.72	37	11.75
SE	38.42	36	11.44
SW	38.42	35	11.87
EOC	35.97	33	10.63
SEAG	39.13	36	11.49
DISD	38.53	36	11.71

TABLE 3

Distribution of Teachers by Category of Experience Within Subdistrict

Percent

	DISD			TOTAL		
	1-5	6-20	21-40	1-5	6-20	21-40
NW	39	49	12	35	46	18
NE	44	47	9	36	48	16
SE	45	46	8	22	57	20
SW	29	60	11	38	48	14
EOC	55	40	5	48	42	10
SEAG	38	59	4	32	50	18
DISD	46	45	9	39	46	15

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[1] More detailed tables showing the distributions of teachers by sex, ethnicity, degree, years of experience, and age can be found in the Appendix (Tables 7-20).

The Seagoville Subdistrict had the highest percentage of teachers with advanced degrees; East Oak Cliff had the smallest percentage (see Table 4). District-wide, approximately 41 percent of the teachers hold advanced degrees beyond the baccalaureate.

TABLE 4

Distribution of Teachers
by Degree within Subdistrict

	Percent			
	No Degree	Bachelors	Masters	Doctorate
NW	0.13	55.00	44.48	0.39
NE	2.62	55.58	44.12	0.55
SE	0.51	58.49	40.59	0.41
SW	0.15	62.47	37.22	0.15
EOC	0.00	64.17	35.57	0.26
SEAG	0.00	50.96	49.04	0.00
DISD	0.72	58.01	40.88	0.35

Table 5 provides some idea as to how secondary-school teachers in the DISD are assigned relative to their fields of certification. In the table, the number of secondary-school teachers assigned to each of 19 subject areas is given along side the number of teachers who are certified in each respective area (teachers certified in more than one subject area appear more than once in this latter column). A third column in the table shows the percentage of teachers assigned to a given subject area who, according to the personnel database, hold teaching certificates in that subject area. The final column in the table gives the percentage of teachers assigned to each area who did not have a particular teaching field designed on their certificates but did have either (1) an area of specialization specific to a given subject area, or (2) a "general" area of specialization (e.g. "all-level" for high schools).

The first thing to note in Table 5 is that nowhere is there perfect agreement between the assigned subject area and certification. In fact, except for teachers assigned to teach handicapped children, and those assigned to homemaking, at least 25 percent of the teachers do not hold certificates in the areas in which they are assigned. In some areas this discrepancy is more easily explained than for other areas. For instance, in the areas of industrial arts, mathematics, music, and science, there are more assignments than there are certified teachers. On the other hand, in social studies, where there are 737 certified teachers for 562 assignments, only 64.8 percent of those holding this assignment actually hold certificates in this area. Similar discrepancies are indicated in business education, foreign language education, and health and physical education. Of course it is possible that some of the teachers certified in these areas were also certified in other areas where the need for them was greater. It is also likely that many teachers hold temporary certificates to teach in their assigned areas. Additional tables, similar to Table 5, but broken-down by subdistrict can be found in the Appendix (Tables 21-27).

TABLE 5

ASSIGNED TEACHING AREA AND TEACHING FIELD

TOTAL DISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	18	13	38,89%	0,00%
ART	118	119	76,27%	6,78%
BUSINESS	157	213	61,78%	0,64%
DISTRIBUTIVE EDUCATION	27	23	70,37%	0,00%
ENGLISH LANGUAGE ARTS	669	755	72,20%	6,43%
FOREIGN LANGUAGES	147	263	66,67%	1,36%
HEALTH OCCUPATIONS	7	14	85,71%	0,00%
HEALTH & PHYSICAL ED.	371	481	64,42%	1,62%
HOMEMAKING	178	194	76,97%	3,93%
INDUSTRIAL ARTS	199	186	66,83%	3,02%
MATHEMATICS	473	338	62,37%	6,34%
MUSIC	200	160	65,50%	3,50%
SCIENCE	380	358	61,58%	4,47%
OFFICE OCCUPATIONS	31	60	74,19%	3,23%
SOCIAL STUDIES	562	737	64,77%	5,87%
TECHNICAL EDUCATION	2	1	0,00%	0,00%
TRADES & INDUSTRY	133	0	0,00%	2,26%
ELEMENTARY EDUCATION	39	620	17,95%	2,56%
HANDICAPPED CHILDREN	172	165	82,56%	0,58%

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* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

In an attempt to look at teacher mobility within the District, data were compiled on the number of faculty new to each building (either new to the DISD or transferred from another building) at the start of the 1976-77 school year. We also tabulated the number of teachers in each building who requested transfer during the first half of the year and the number who actually transferred out of the building during the first half of the year. These data are summarized in Table 6. As can be seen in the table, the District's schools experienced a large influx of new faculty this past year (19.9% of the faculty new to a building were also new to the DISD). The Northwest and Northeast Subdistricts were particularly beseiged by new faculty. These subdistricts also had the highest percentage of faculty transferring out. Thus these two subdistricts experienced a very high rate of faculty turnover. By contrast, Seagoville maintained a fairly stable faculty. More detailed tables by subdistrict are given in the Appendix (Tables 28-34).

TABLE 6

Factors Associated With Teacher
Mobility and Absenteeism by Subdistrict

	Percent			Average Leave Used	
Subdistrict	New Faculty	Requesting Transfer	Transferred Out	Sick	Personal
NW	41.5	31.7	28.2	2.09	0.32
NE	40.9	29.1	27.1	1.99	0.32
SW	32.7	25.9	18.2	2.02	0.32
SE	47.2	30.9	24.0	1.93	0.31
EOC	35.0	24.2	18.4	2.15	0.36
SEAG	16.3	17.3	9.6	1.33	0.34
DISD	37.4	28.3	23.3	2.03	0.33

We also collected data on absenteeism, and these are also summarized in Table 6. The average sick leave used during the first half of the year was 2.03 days per teacher. The average teacher also used 1/3 personal leave days.

APPENDIX

Number of Teachers by Sex and Ethnicity; Distribution of Teachers by Degree; Distribution of Teachers by Years of Experience

Northwest Subdistrict . . . . TABLE 7
Northeast Subdistrict . . . . TABLE 8
Southwest Subdistrict . . . . TABLE 9
Southeast Subdistrict . . . . TABLE 10
East Oak Cliff Subdistrict. . . . . TABLE 11
Seagoville Subdistrict . . . . TABLE 12
Total District. . . . . TABLE 13

Age of Teachers by Sex

Northwest Subdistrict . . . . TABLE 14
Northeast Subdistrict . . . . TABLE 15
Southeast Subdistrict . . . . TABLE 16
Southwest Subdistrict . . . . TABLE 17
East Oak Cliff Subdistrict. . . . . TABLE 18
Seagoville Subdistrict . . . . TABLE 19
Total District. . . . . TABLE 20

Assigned Teaching Area and Teaching Field TABLE 21
Northwest Subdistrict . . . . TABLE 22
Northeast Subdistrict . . . . TABLE 23
Southeast Subdistrict . . . . TABLE 24
Southwest Subdistrict . . . . TABLE 25
East Oak Cliff Subdistrict. . . . . TABLE 26
Seagoville Subdistrict . . . . TABLE 27

Factors Associated With Teacher Mobility

Northwest Subdistrict . . . . TABLE 28
Northeast Subdistrict . . . . TABLE 29
Southeast Subdistrict . . . . TABLE 30
Southwest Subdistrict . . . . TABLE 31
East Oak Cliff Subdistrict. . . . . TABLE 32
Seagoville Subdistrict . . . . TABLE 33
Total District. . . . . TABLE 34

TABLE 7
NUMBER OF TEACHERS BY SEX AND ETHNICITY

NORTHWEST SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	1	2	3
	0,07%	0,13%	0,20%
BLACK	92	284	376
	6,01%	18,55%	24,56%
ORIENTAL	1	3	4
	0,07%	0,20%	0,26%
SPANISH	29	89	118
	1,89%	5,81%	7,71%
OTHER	229	801	1030
	14,96%	52,32%	67,28%
TOTAL	352	1179	1531
	22,99%	77,01%	100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE: 2 (0,13%) BACHELORS: 842 (55,00%)

MASTERS: 681 (44,48%) DOCTORATE: 6 (0,39%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	380	281	361	195	142	105	44	23
TOTAL:	273	270	342	216	153	115	72	90

TABLE 8
NUMBER OF TEACHERS BY SEX AND ETHNICITY

NORTHEAST SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	0 0,00%	3 0,21%	3 0,21%
BLACK	72 4,96%	302 20,78%	374 25,74%
ORIENTAL	0 0,00%	1 0,07%	1 0,07%
SPANISH	16 1,10%	41 2,82%	57 3,92%
OTHER	265 18,24%	753 51,82%	1018 70,06%
TOTAL	353 24,29%	1100 75,71%	1453 100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE:	38 (2,62%)	BACHELORS:	764 (52,58%)
MASTERS:	641 (44,12%)	DOCTORATE:	8 (0,55%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	358	279	356	196	128	100	23	13
TOTAL:	270	254	328	226	145	110	57	63

TABLE 9
NUMBER OF TEACHERS BY SEX AND ETHNICITY

SOUTHEAST SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	0 0,00%	0 0,00%	0 0,00%
BLACK	72 7,32%	242 24,62%	314 31,94%
ORIENTAL	0 0,00%	0 0,00%	0 0,00%
SPANISH	10 1,02%	19 1,93%	29 2,95%
OTHER	166 16,89%	474 48,22%	640 65,11%
TOTAL	248 25,23%	735 74,77%	983 100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE:	5 (0,51%)	BACHELORS:	575 (58,49%)
MASTERS:	399 (40,59%)	DOCTORATE:	4 (0,41%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	264	182	230	148	78	63	12	6
TOTAL:	203	175	211	153	83	68	52	38

TABLE 10
NUMBER OF TEACHERS BY SEX AND ETHNICITY

SOUTHWEST SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	0 0,00%	0 0,00%	0 0,00%
BLACK	94 7,26%	273 21,08%	367 28,34%
ORIENTAL	0 0,00%	1 0,08%	1 0,08%
SPANISH	20 1,54%	55 4,25%	75 5,79%
OTHER	208 16,06%	644 49,73%	852 65,79%
TOTAL	322 24,86%	973 75,14%	1295 100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE: 2 (0,15%)   BACHELORS: 809 (62,47%)

MASTERS: 482 (37,22%)   DOCTORATE: 2 (0,15%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	369	217	307	182	107	74	27	12
TOTAL:	280	210	285	212	124	88	43	53

TABLE 11
NUMBER OF TEACHERS BY SEX AND ETHNICITY

E. OAK CLIFF SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	0	1	1
	0.00%	0.09%	0.09%
BLACK	135	389	524
	11.92%	34.33%	46.25%
ORIENTAL	0	2	2
	0.00%	0.18%	0.18%
SPANISH	8	7	15
	0.71%	0.62%	1.32%
OTHER	98	493	591
	8.65%	43.51%	52.16%
TOTAL	241	892	1133
	21.27%	78.73%	100.00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE: 0 (0.00%) BACHELORS: 727 (64.17%)

MASTERS: 403 (35.57%) DOCTORATE: 3 (0.26%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	401	223	252	129	70	37	10	11
TOTAL:	313	229	231	151	98	60	24	27

TABLE 12
NUMBER OF TEACHERS BY SEX AND ETHNICITY

SEAGOVILLE SUBDISTRICT

	MALE	FEMALE	TOTAL
INDIAN	0 0,00%	0 0,00%	0 0,00%
BLACK	2 1,92%	24 23,08%	26 25,00%
ORIENTAL	0 0,00%	0 0,00%	0 0,00%
SPANISH	0 0,00%	0 0,00%	0 0,00%
OTHER	31 29,81%	47 45,19%	78 75,00%
TOTAL	33 31,73%	71 68,27%	104 100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE:	0 (0,00%)	BACHELORS:	53 (50,96%)
MASTERS:	51 (49,04%)	DOCTORATE:	0 (0,00%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	17	22	32	29	0	3	0	1
TOTAL:	12	21	27	22	3	5	7	7

TABLE 13
NUMBER OF TEACHERS BY SEX AND ETHNICITY

TOTAL DISTRICT

	MALE	FEMALE	TOTAL
INDIAN	1 0,02%	6 0,09%	7 0,11%
BLACK	467 7,19%	1514 23,30%	1981 30,48%
ORIENTAL	1 0,02%	7 0,11%	8 0,12%
SPANISH	83 1,28%	211 3,25%	294 4,52%
OTHER	997 15,34%	3212 49,42%	4209 64,76%
TOTAL	1549 23,83%	4950 76,17%	6499 100,00%

DISTRIBUTION OF TEACHERS BY DEGREE

NO DEGREE: 47 (0,72%) BACHELORS: 3770 (58,01%)

MASTERS: 2657 (40,88%) DOCTORATE: 23 (0,35%)

DISTRIBUTION BY YEARS OF EXPERIENCE

	0-2	3-5	6-10	11-15	16-20	21-25	26-30	>30
DISD :	1789	1204	1538	879	525	382	116	66
TOTAL:	1351	1159	1424	980	606	446	255	278

TABLE 14
AGE OF TEACHERS BY SEX

NORTHWEST SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0	0	0
	0.00%	0.00%	0.00%
21-25	6	130	136
	0.39%	8.49%	8.88%
26-30	71	279	350
	4.64%	18.22%	22.86%
31-35	68	170	238
	4.44%	11.10%	15.55%
36-40	61	118	179
	3.98%	7.71%	11.69%
41-45	42	102	144
	2.74%	6.66%	9.41%
46-50	40	121	161
	2.61%	7.90%	10.52%
51-55	34	76	110
	2.22%	4.96%	7.18%
56-60	13	91	104
	0.85%	5.94%	6.79%
61-65	14	58	72
	0.91%	3.79%	4.70%
>65	2	32	34
	0.13%	2.09%	2.22%
TOTAL	352	1179	1531
	22.99%	77.01%	100.00%
MEDIAN	38	36	36
MEAN	39.83	39.28	39.41
STANDARD DEVIATION	10.196	12.707	12.175

TABLE 15
AGE OF TEACHERS BY SEX

NORTHEAST SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0 0.00%	0 0.00%	0 0.00%
21-25	12 0.83%	100 6.88%	112 7.71%
26-30	56 3.85%	238 16.38%	294 20.23%
31-35	63 4.34%	191 13.15%	254 17.48%
36-40	44 3.03%	126 8.67%	170 11.70%
41-45	47 3.23%	119 8.19%	166 11.42%
46-50	56 3.85%	91 6.26%	147 10.12%
51-55	37 2.55%	75 5.16%	112 7.71%
56-60	27 1.86%	87 5.99%	114 7.85%
61-65	6 0.41%	55 3.79%	61 4.20%
>65	4 0.28%	17 1.17%	21 1.45%
TOTAL	353 24.29%	1100 75.71%	1453 100.00%
MEDIAN	41	36	37
MEAN	41.09	39.24	39.72
STANDARD DEVIATION	10.597	12.072	11.753

TABLE 16
AGE OF TEACHERS BY SEX

SOUTHEAST SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0 0.00%	0 0.00%	0 0.00%
21-25	12 1.22%	82 8.34%	94 9.56%
26-30	46 4.68%	182 18.51%	228 23.19%
31-35	48 4.88%	119 12.11%	167 16.99%
36-40	40 4.07%	77 7.83%	117 11.90%
41-45	33 3.36%	71 7.22%	104 10.58%
46-50	32 3.26%	68 6.92%	100 10.17%
51-55	15 1.53%	49 4.98%	64 6.51%
56-60	14 1.42%	44 4.48%	58 5.90%
61-65	6 0.61%	37 3.76%	43 4.37%
>65	2 0.20%	5 0.51%	7 0.71%
TOTAL	248 25.23%	735 74.77%	983 100.00%
MEDIAN	37	35	36
MEAN	39.38	38.09	38.42
STANDARD DEVIATION	10.234	11.807	11.438

TABLE 17
AGE OF TEACHERS BY SEX

SOUTHWEST SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0 0.00%	0 0.00%	0 0.00%
21-25	19 1.47%	133 10.27%	152 11.74%
26-30	65 5.02%	207 15.98%	272 21.00%
31-35	65 5.02%	169 13.05%	234 18.07%
36-40	47 3.63%	94 7.26%	141 10.89%
41-45	44 3.40%	95 7.34%	139 10.73%
46-50	37 2.86%	75 5.79%	112 8.65%
51-55	21 1.62%	77 5.95%	98 7.57%
56-60	15 1.16%	56 4.32%	71 5.48%
61-65	7 0.54%	41 3.17%	48 3.71%
>65	2 0.15%	24 1.85%	26 2.01%
TOTAL	322 24.86%	973 75.14%	1295 100.00%
MEDIAN	37	35	35
MEAN	38.52	38.39	38.42
STANDARD DEVIATION	10.137	12.399	11.872

TABLE 18
AGE OF TEACHERS BY SEX

E. OAK CLIFF SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0 0.00%	0 0.00%	0 0.00%
21-25	17 1.50%	146 12.89%	163 14.39%
26-30	54 4.77%	257 22.68%	311 27.45%
31-35	46 4.06%	129 11.39%	175 15.45%
36-40	35 3.09%	100 8.83%	135 11.92%
41-45	29 2.56%	96 8.47%	125 11.03%
6-50	31 2.74%	65 5.74%	96 8.47%
51-55	15 1.32%	37 3.27%	52 4.59%
56-60	10 0.88%	34 3.00%	44 3.88%
61-65	1 0.09%	20 1.77%	21 1.85%
>65	3 0.26%	8 0.71%	11 0.97%
TOTAL	241 21.27%	892 78.73%	1133 100.00%
MEDIAN	36	32	33
MEAN	37.79	35.47	35.97
STANDARD DEVIATION	9.975	10.753	10.630

TABLE 19
AGE OF TEACHERS BY SEX

SEAGOVILLE SUBDISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0	0	0
	0.00%	0.00%	0.00%
21-25	1	4	5
	0.96%	3.85%	4.81%
26-30	9	18	27
	8.65%	17.31%	25.96%
31-35	8	11	19
	7.69%	10.58%	18.27%
36-40	4	12	16
	3.85%	11.54%	15.38%
41-45	4	2	6
	3.85%	1.92%	5.77%
46-50	3	9	12
	2.88%	8.65%	11.54%
51-55	4	2	6
	3.85%	1.92%	5.77%
56-60	0	7	7
	0.00%	6.73%	6.73%
61-65	0	3	3
	0.00%	2.88%	2.88%
>65	0	3	3
	0.00%	2.88%	2.88%
TOTAL	33	71	104
	31.73%	68.27%	100.00%
MEDIAN	34	37	36
MEAN	37.24	40.01	39.13
STANDARD DEVIATION	9.199	12.370	11.487

TABLE 20
AGE OF TEACHERS BY SEX

TOTAL DISTRICT

AGE	MALE	FEMALE	TOTAL
<21	0 0.00%	0 0.00%	0 0.00%
21-25	67 1.03%	595 9.16%	662 10.19%
26-30	301 4.63%	1181 18.17%	1482 22.80%
31-35	298 4.59%	789 12.14%	1087 16.73%
36-40	231 3.55%	527 8.11%	758 11.66%
41-45	199 3.06%	485 7.46%	684 10.52%
46-50	199 3.06%	429 6.60%	628 9.66%
51-55	126 1.94%	316 4.86%	442 6.80%
56-60	79 1.22%	319 4.91%	398 6.12%
61-65	34 0.52%	214 3.29%	248 3.82%
>65	13 0.20%	89 1.37%	102 1.57%
TOTAL	1549 23.83%	4950 76.17%	6499 100.00%
MEDIAN	37	35	36
MEAN	39.40	38.25	38.53
STANDARD DEVIATION	10.279	12.107	11.706

TABLE 21

ASSIGNED TEACHING AREA AND TEACHING FIELD

NORTHWEST SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	8	1	12.50%	0.00%
ART	31	35	77.42%	9.68%
BUSINESS	32	39	65.63%	0.00%
DISTRIBUTIVE EDUCATION	5	4	80.00%	0.00%
ENGLISH LANGUAGE ARTS	164	184	73.17%	7.32%
FOREIGN LANGUAGES	38	66	78.95%	2.63%
HEALTH & PHYSICAL ED.	96	120	66.67%	0.00%
HOMEMAKING	39	40	89.74%	5.13%
INDUSTRIAL ARTS	42	44	80.95%	2.38%
MATHEMATICS	124	82	62.10%	9.68%
MUSIC	63	46	60.32%	6.35%
SCIENCE	97	86	60.82%	6.19%
OFFICE OCCUPATIONS	7	11	85.71%	0.00%
SOCIAL STUDIES	135	180	62.96%	8.15%
TRADES & INDUSTRY	31	0	0.00%	3.23%
ELEMENTARY EDUCATION	5	156	20.00%	20.00%
HANDICAPPED CHILDREN	48	43	81.25%	0.00%

* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 22

ASSIGNED TEACHING AREA AND TEACHING FIELD

NORTHEAST SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	4	5	50,00%	0,00%
ART	23	18	65,22%	8,70%
BUSINESS	44	77	68,18%	0,00%
DISTRIBUTIVE EDUCATION	5	6	80,00%	0,00%
ENGLISH LANGUAGE ARTS	149	183	68,46%	6,71%
FOREIGN LANGUAGES	44	62	61,36%	2,27%
HEALTH OCCUPATIONS	2	10	100,00%	0,00%
HEALTH & PHYSICAL ED.	65	98	56,92%	4,62%
HOMEMAKING	43	47	65,12%	2,33%
INDUSTRIAL ARTS	54	38	50,00%	1,85%
MATHEMATICS	103	83	66,02%	2,91%
MUSIC	31	26	67,74%	3,23%
SCIENCE	98	89	61,22%	5,10%
OFFICE OCCUPATIONS	8	26	75,00%	0,00%
SOCIAL STUDIES	123	171	70,73%	1,63%
TECHNICAL EDUCATION	1	1	0,00%	0,00%
TRADES & INDUSTRY	47	0	0,00%	4,26%
ELEMENTARY EDUCATION	5	165	20,00%	0,00%
HANDICAPPED CHILDREN	25	30	92,00%	0,00%

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* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 23

ASSIGNED TEACHING AREA AND TEACHING FIELD

SOUTHEAST SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	2	3	100,00%	0,00%
ART	21	18	57,14%	14,29%
BUSINESS	27	33	44,44%	0,00%
DISTRIBUTIVE EDUCATION	4	3	50,00%	0,00%
ENGLISH LANGUAGE ARTS	114	117	68,42%	4,39%
FOREIGN LANGUAGES	18	43	55,56%	0,00%
HEALTH & PHYSICAL ED.	67	69	61,19%	2,99%
HOMEMAKING	26	35	88,46%	7,69%
INDUSTRIAL ARTS	28	31	64,29%	0,00%
MATHEMATICS	71	57	70,42%	7,04%
MUSIC	45	28	48,89%	2,22%
SCIENCE	57	60	56,14%	3,51%
OFFICE OCCUPATIONS	6	8	50,00%	16,67%
SOCIAL STUDIES	86	129	75,58%	4,65%
TRADES & INDUSTRY	19	0	0,00%	0,00%
ELEMENTARY EDUCATION	21	103	9,52%	0,00%
HANDICAPPED CHILDREN	46	31	63,04%	2,17%

* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 24

ASSIGNED TEACHING AREA AND TEACHING FIELD

SOUTHWEST SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
ART	21	22	85,71%	0,00%
BUSINESS	33	37	60,61%	3,03%
DISTRIBUTIVE EDUCATION	8	5	62,50%	0,00%
ENGLISH LANGUAGE ARTS	137	155	78,10%	6,57%
FOREIGN LANGUAGES	28	54	71,43%	0,00%
HEALTH OCCUPATIONS	3	3	100,00%	0,00%
HEALTH & PHYSICAL ED.	82	115	68,29%	1,22%
HOMEMAKING	36	42	77,78%	2,78%
INDUSTRIAL ARTS	51	45	66,67%	3,92%
MATHEMATICS	100	70	58,00%	5,00%
MUSIC	37	34	78,38%	0,00%
SCIENCE	76	72	68,42%	1,32%
OFFICE OCCUPATIONS	5	9	80,00%	0,00%
SOCIAL STUDIES	108	151	65,74%	6,48%
TECHNICAL EDUCATION	1	0	0,00%	0,00%
TRADES & INDUSTRY	20	0	0,00%	0,00%
ELEMENTARY EDUCATION	2	119	50,00%	0,00%
HANDICAPPED CHILDREN	34	39	100,00%	0,00%

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* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 25

ASSIGNED TEACHING AREA AND TEACHING FIELD

E. OAK CLIFF SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
ART	20	24	95.00%	0.00%
BUSINESS	19	24	68.42%	0.00%
DISTRIBUTIVE EDUCATION	4	4	75.00%	0.00%
ENGLISH LANGUAGE ARTS	94	102	70.21%	7.45%
FOREIGN LANGUAGES	18	35	61.11%	0.00%
HEALTH OCCUPATIONS	2	1	50.00%	0.00%
HEALTH & PHYSICAL ED.	51	72	70.59%	0.00%
HOMEMAKING	31	27	64.52%	3.23%
INDUSTRIAL ARTS	21	26	85.71%	9.52%
MATHEMATICS	69	41	53.62%	7.25%
MUSIC	22	23	86.36%	4.55%
SCIENCE	46	42	54.35%	6.52%
OFFICE OCCUPATIONS	4	4	75.00%	0.00%
SOCIAL STUDIES	103	94	48.54%	7.77%
TRADES & INDUSTRY	14	0	0.00%	0.00%
ELEMENTARY EDUCATION	6	74	33.33%	0.00%
HANDICAPPED CHILDREN	16	19	87.50%	0.00%

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* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 26

ASSIGNED TEACHING AREA AND TEACHING FIELD

SEAGOVILLE SUBDISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	4	2	50.00%	0.00%
ART	2	2	100.00%	0.00%
BUSINESS	2	3	50.00%	0.00%
DISTRIBUTIVE EDUCATION	1	1	100.00%	0.00%
ENGLISH LANGUAGE ARTS	11	14	90.91%	0.00%
FOREIGN LANGUAGES	1	3	0.00%	0.00%
HEALTH & PHYSICAL ED.	10	7	50.00%	0.00%
HOMEMAKING	3	3	100.00%	0.00%
INDUSTRIAL ARTS	3	2	66.67%	0.00%
MATHEMATICS	6	5	83.33%	0.00%
MUSIC	2	3	100.00%	0.00%
SCIENCE	6	9	100.00%	0.00%
OFFICE OCCUPATIONS	1	2	100.00%	0.00%
SOCIAL STUDIES	7	12	85.71%	14.29%
TRADES & INDUSTRY	2	0	0.00%	0.00%
HANDICAPPED CHILDREN	3	3	100.00%	0.00%

* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 27

ASSIGNED TEACHING AREA AND TEACHING FIELD

TOTAL DISTRICT

SUBJECT AREA	NUMBER OF TEACHERS ASSIGNED TO THIS AREA	NUMBER OF TEACHERS WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS TEACHING FIELD	PERCENTAGE OF TEACHERS ASSIGNED TO THIS AREA WITH THIS AREA OF SPECIALIZATION*
AGRICULTURE	18	13	38,89%	0,00%
ART	118	119	76,27%	6,78%
BUSINESS	157	213	61,78%	0,64%
DISTRIBUTIVE EDUCATION	27	23	70,37%	0,00%
ENGLISH LANGUAGE ARTS	669	755	72,20%	6,43%
FOREIGN LANGUAGES	147	263	66,67%	1,36%
HEALTH OCCUPATIONS	7	14	85,71%	0,00%
HEALTH & PHYSICAL ED,	371	481	64,42%	1,62%
HOMEMAKING	178	194	76,97%	3,93%
INDUSTRIAL ARTS	199	186	66,83%	3,02%
MATHEMATICS	473	338	62,37%	6,34%
MUSIC	200	160	65,50%	3,50%
SCIENCE	380	358	61,58%	4,47%
OFFICE OCCUPATIONS	31	60	74,19%	3,23%
SOCIAL STUDIES	562	737	64,77%	5,87%
TECHNICAL EDUCATION	2	1	0,00%	0,00%
TRADES & INDUSTRY	133	0	0,00%	2,26%
ELEMENTARY EDUCATION	39	620	17,95%	2,56%
HANDICAPPED CHILDREN	172	165	82,56%	0,58%

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* THESE TEACHERS HAVE NO TEACHING FIELD DESIGNATED ON THEIR CERTIFICATE(S), BUT HAVE EITHER 1) AN AREA OF SPECIALIZATION SPECIFIC TO A GIVEN FIELD OR 2) A GENERAL AREA OF SPECIALIZATION SUCH AS ELEMENTARY, JUNIOR HIGH SCHOOL OR ALL-LEVEL FOR MIDDLE SCHOOLS AND HIGH SCHOOL OR ALL-LEVEL FOR HIGH SCHOOLS.

TABLE 28

FACTORS ASSOCIATED WITH TEACHER MOBILITY

NORTHWEST SUBDISTRICT

SIZE OF FACULTY	1531
% TRANSFERRED IN, THIS YEAR	29.3%
% NEW TO DISD, THIS YEAR	12.3%
% NEW FACULTY, THIS YEAR	41.5%
% REQUESTING TRANSFER, THIS YEAR	31.7%
% TRANSFERRED OUT, THIS YEAR	28.2%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	2.09
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.32

TABLE 29

FACTORS ASSOCIATED WITH TEACHER MOBILITY
NORTHEAST SUBDISTRICT

SIZE OF FACULTY	1453
% TRANSFERRED IN, THIS YEAR	27.8%
% NEW TO DISD, THIS YEAR	13.1%
% NEW FACULTY, THIS YEAR	40.9%
% REQUESTING TRANSFER, THIS YEAR	29.1%
% TRANSFERRED OUT, THIS YEAR	27.1%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	1.99
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.32

TABLE 30

FACTORS ASSOCIATED WITH TEACHER MOBILITY
SOUTHEAST SUBDISTRICT

SIZE OF FACULTY	983
% TRANSFERRED IN, THIS YEAR	24.1%
% NEW TO DISD, THIS YEAR	13.1%
% NEW FACULTY, THIS YEAR	37.2%
% REQUESTING TRANSFER, THIS YEAR	30.9%
% TRANSFERRED OUT, THIS YEAR	24.0%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	1.93
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.31

TABLE 31

FACTORS ASSOCIATED WITH TEACHER MOBILITY

SOUTHWEST SUBDISTRICT

SIZE OF FACULTY	1295
% TRANSFERRED IN, THIS YEAR	20.5%
% NEW TO DISD, THIS YEAR	12.2%
% NEW FACULTY, THIS YEAR	32.7%
% REQUESTING TRANSFER, THIS YEAR	25.9%
% TRANSFERRED OUT, THIS YEAR	18.2%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	2.02
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.32

TABLE 32

FACTORS ASSOCIATED WITH TEACHER MOBILITY

E. OAK CLIFF SUBDISTRICT

SIZE OF FACULTY	1133
% TRANSFERRED IN, THIS YEAR	20.0%
% NEW TO DISD, THIS YEAR	15.0%
% NEW FACULTY, THIS YEAR	35.0%
% REQUESTING TRANSFER, THIS YEAR	24.2%
% TRANSFERRED OUT, THIS YEAR	18.4%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	2.15
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.36

TABLE 33

FACTORS ASSOCIATED WITH TEACHER MOBILITY

SEAGOVILLE SUBDISTRICT

SIZE OF FACULTY	104
% TRANSFERRED IN, THIS YEAR	11.5%
% NEW TO DISD, THIS YEAR	4.8%
% NEW FACULTY, THIS YEAR	16.3%
% REQUESTING TRANSFER, THIS YEAR	17.3%
% TRANSFERRED OUT, THIS YEAR	9.6%

ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)

AVERAGE NO. DAYS SICK LEAVE USED PER PERSON	1.33
AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON	0.34

```
TABLE 34

FACTORS ASSOCIATED WITH TEACHER MOBILITY

TOTAL DISTRICT

-----------------------------------------------------------------

SIZE OF FACULTY --------------------------------------  6499


                     % TRANSFERRED IN, THIS YEAR -------   24.5%

                     % NEW TO DISD, THIS YEAR ----------   12.9%


% NEW FACULTY, THIS YEAR -----------------------------   37.4%


% REQUESTING TRANSFER, THIS YEAR --------------------   28.3%


% TRANSFERRED OUT, THIS YEAR ------------------------   23.3%




ABSENTEEISM THIS YEAR (AUG 17 - DEC 31)
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      AVERAGE NO. DAYS SICK LEAVE USED PER PERSON ----   2.03

      AVERAGE NO. DAYS PERSONAL LEAVE USED PER PERSON    0.33
```

Additional Information:

IR77-006-9 Measurement Profiles: 1976-77, 1977, James A. Meier, Susan J. Whitmore.

IR77-008-9 Norm-referenced Performance Profiles, 1976-77, 1977, Susan J. Whitmore, James A. Meier.

76-814 through 76-833 Performance Profile, 1976, George H. Olson, James A. Meier.

76-810 Measurement Profile, 1975-76, 1976, George H. Olson, James A. Meier, 62 pages.

75-628 Measurement Profiles 1974-75, 1975, Williams J. Webster, Babs Tulknight, 130 pages.

IR77-011-3-12-1

Abstract

Functional Level Performance Profiles 1977
Northwest Subdistrict

Evaluators: James A. Meier
Charlotte J. Eberhart

Purpose: Criterion-referenced functional level performance tests in reading and mathematics tests were administered system-wide in spring, 1977, in grades 8 and 12. The long-range purposes of such testing are to identify individual students in grade 8 who are performing below estimated minimum levels needed in everyday living after leaving school, thus requiring special attention or a special curriculum during high school, as well as to evaluate the eventual success of such attention and curriculum by grade 12. The purpose of this study was to report the results of the 1977 testing.

Sample: All students were tested in grade 8 in February, 1977, and in grade 12 in March, 1977. The schools included are listed as follows.

Grade 8	Grade 12
Cary	Creative Arts
Marsh	Hillcrest
Rusk	Jefferson
Sequoyah	North Dallas
Spence	Pinkston
Walker	Transportation
	White

Number of Students Tested

Ethnicity	Grade 8	Grade 12
Anglo	1025	1036
Black	691	347
MexAm	510	162
Total	2299	1589

Methodology: The instruments used in testing were the Everyday Skills Tests in Reading and Mathematics, commercially available from McGraw-Hill, and a supplement of 18 test items developed locally by the District to enlarge the set of mathematics objectives tested. The resulting student test records were grouped by school within subdistrict, so that scores could be summarized by schools as well as accumulated for entire subdistricts and for the whole District. Results are reported below only for this subdistrict, not for schools within it.

Each student record was found to contain a valid campus code, tying it to a particular school; thus, no record was excluded for want of school identification. If a record contained an invalid ethnicity code, it was included in ethnicity totals only. If a test-item response field contained anything other than the correct response, it was treated as an incorrect response; thus, invalid and blank responses were regarded as incorrect. Finally, no count was kept of invalid ethnicity codes or invalid item-responses; perhaps there were none.

Objectives Tested: Each test comprised 45 items measuring 15 objectives (three items per objective). These objectives are listed briefly as follows.

Reading

1. Consumer vocabulary
2. Telephone directory
3. Medical instructions
4. Caution labels
5. Product ingredients
6. Preparation directions
7. Abbreviation meanings
8. Store directories
9. Job want-ads
10. Outdoor signs
11. Tax forms
12. Transportation schedules
13. Job applications
14. Driver's handbook
15. Newspaper reporting

Mathematics

1. Spending behavior
2. Currency
3. Cost comparison
4. Time calculation
5. Travel time
6. Discount rate
7. Sales tax
8. Rate of interest
9. Income tax calculations
10. Scaled dimensional drawings
11. Graph reading
12. Arithmetic of fractions
13. Personal records
14. Practical approximations
15. Metric units of measurement

Assumptions and Limitations:

1. The Everyday Skills Tests had not been administered previously in the District, although the additional 18 mathematics items had been field tested here. The students had been given no special preparation for the tests nor special motivation to do well or ill.

2. District curriculum had not been intentionally designed or implemented to enable students to perform well on the tests. However, results from this testing may lead to curricular modifications for some students to enable them to perform better when retested in future years.

3. The office of system-wide testing had instructed principals and counselors to administer the Everyday Skills Tests in classrooms, whose atmosphere of greater silence and orderliness permits students to perform better. A brief questionnaire

surveying each testing situation was to be completed and returned by the teachers and counselors involved in testing. According to these questionnaires some classes of students were grouped together in large and sometimes noisy lunchrooms and auditoriums, situations in which students were not likely to do their best work.

4. The student was judged to have mastered an objective if he answered correctly at least two of three items measuring the objective. Moreover, it was originally hoped that all or nearly all grade-12 students possessed the skills to pass all 15 objectives on each test.

Results: An analysis of test results supports the following claims.

1. Since the same tests were taken by both grades, grade-12 students performed higher than grade-8, as was to be expected. The total number of test items was 45; the total number of objectives was 15.

Mean Number Passed

	Reading				Mathematics			
Ethnicity	Grade 8		Grade 12		Grade 8		Grade 12	
	It	Ob	It	Ob	It	Ob	It	Ob
Anglo	39	13	44	15	30	11	39	14
Black	27	9	36	13	17	5	25	8
MexAm	30	10	39	14	21	7	31	11
Total	33	11	41	14	24	8	35	12

It = Items   Ob = Objectives

2. In both grades each reading and mathematics objective was passed by a larger proportion of Anglo students than of Mexican-American students and by a larger proportion of the latter than of black students.

Proportion of Students Passing All Fifteen Objectives

	Reading		Mathematics	
Ethnicity	Grade 8	Grade 12	Grade 8	Grade 12
Anglo	57	90	10	40
Black	7	30	0	1
MexAm	13	43	1	7
Total	31	72	5	27

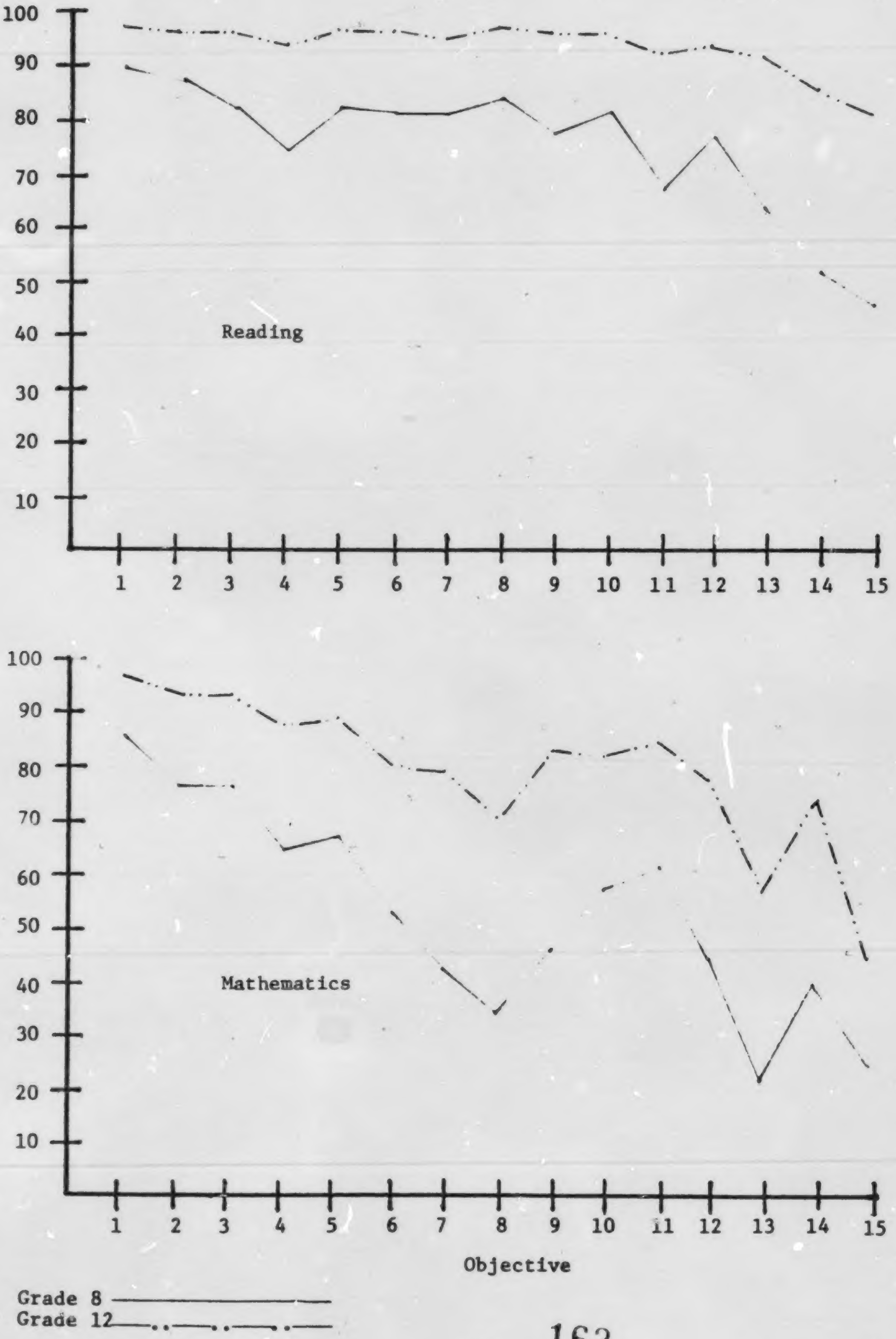
3. In reading, the most difficult objectives proved to be 15 and 14 in both grades and all ethnicities. In mathematics the most difficult objectives were 15 and 13, again in both grades and all ethnicities. Displayed in the graphs below and in their table of ordinates are the proportions of students passing each objective.

Percent of Students Passing Each of Fifteen Objectives

	Reading								Mathematics							
Objective	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	94	84	89	90	99	96	98	99	94	77	85	87	99	93	98	98
2	94	81	88	88	99	93	98	98	89	62	73	77	98	85	91	94
3	94	71	78	83	99	92	99	98	93	59	70	77	99	80	93	94
4	93	58	67	77	99	86	95	96	85	40	55	64	98	66	87	89
5	93	70	80	83	99	92	97	97	88	46	58	68	97	71	83	91
6	93	71	75	83	99	93	94	97	70	33	43	53	93	53	68	81
7	92	72	77	82	99	89	94	96	64	20	28	42	93	48	69	80
8	93	76	84	86	99	93	99	98	52	19	20	34	87	31	51	71
9	92	63	75	79	99	90	95	97	66	26	39	47	94	58	76	84
10	92	70	78	82	99	88	97	96	79	36	48	58	93	58	70	83
11	85	53	61	70	98	80	89	93	81	39	52	61	96	63	77	86
12	89	65	74	78	99	85	93	95	70	18	32	46	94	41	62	79
13	83	45	55	65	99	76	88	92	31	14	20	23	72	22	39	57
14	78	28	39	54	97	58	74	86	60	19	28	40	91	37	58	75
15	73	24	29	48	95	50	52	80	38	13	18	25	55	21	31	45

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing Each Objective



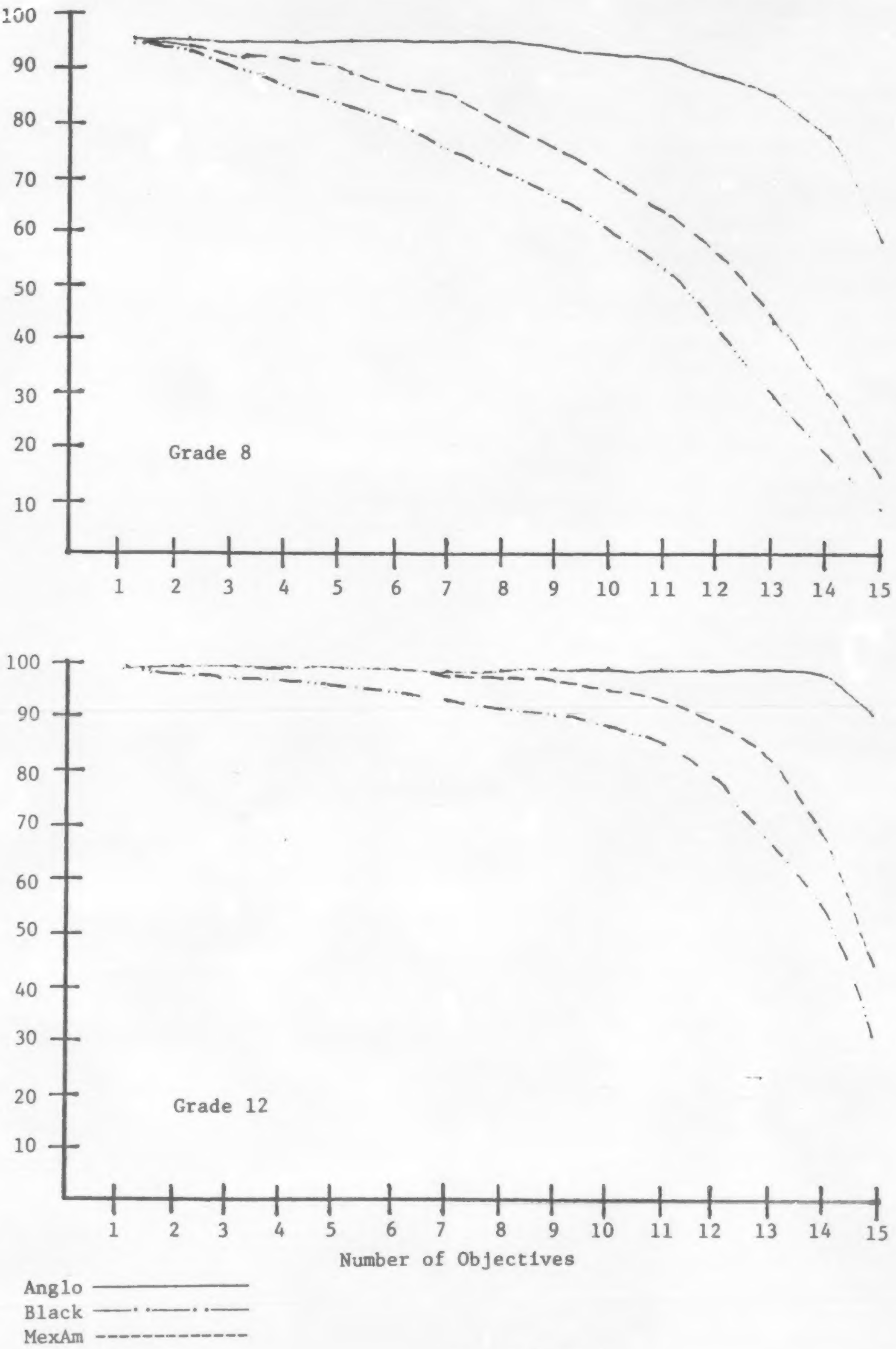
4. It was originally hoped that all or nearly all grade-12 students would possess the skills necessary to pass all 15 objectives in each test. The results of the recent testing indicate that that goal will not be reached without special intervention. Displayed in the graphs below and in their table of ordinates are the decreasing proportions of students passing an increasing number of objectives.

Decreasing Percent of Students Passing an Increasing Number of Objectives

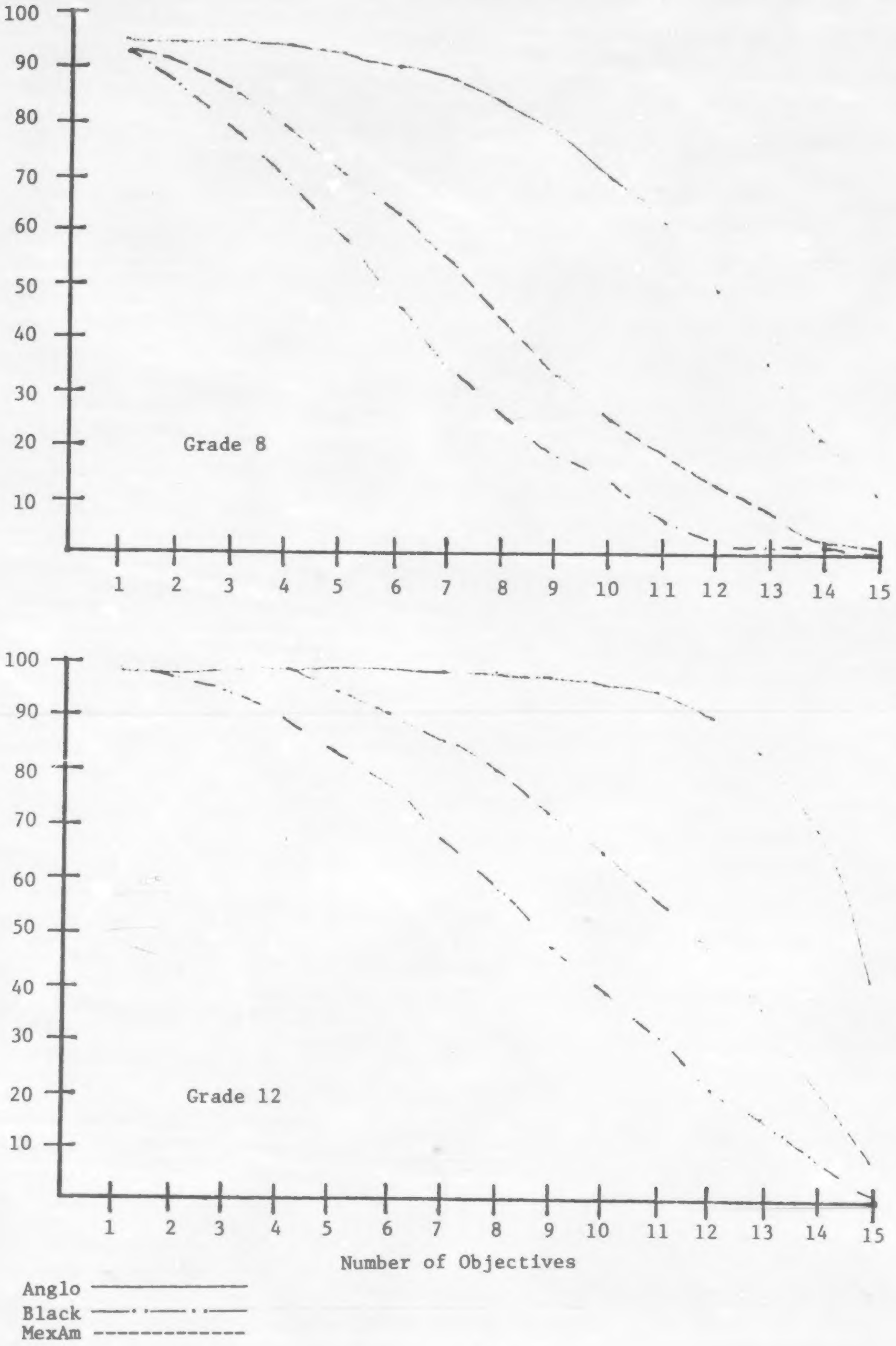
Number of Objectives	Reading								Mathematics							
	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	95	94	94	94	99	99	99	99	96	93	93	94	99	99	99	99
2	95	92	93	94	99	98	99	99	95	86	90	91	99	98	99	99
3	94	89	92	92	99	97	99	99	95	78	85	87	99	96	99	99
4	94	85	91	91	99	97	99	99	94	68	79	83	99	90	99	97
5	94	82	88	89	99	96	99	99	92	57	70	76	99	83	96	95
6	94	79	85	88	99	95	99	99	90	45	62	70	99	77	91	93
7	94	74	84	86	99	93	98	98	88	33	53	63	98	67	86	90
8	94	70	79	83	99	91	98	97	84	23	42	56	98	58	80	87
9	93	65	74	80	99	90	97	97	79	17	32	49	97	47	72	83
10	92	58	69	76	99	88	96	96	70	12	23	41	95	38	64	79
11	91	51	62	72	99	85	93	95	61	6	17	34	94	30	56	76
12	88	40	54	66	99	79	89	93	48	3	11	26	90	20	47	69
13	85	28	42	58	99	68	83	90	34	1	7	18	83	14	36	62
14	77	17	29	47	98	55	69	85	20	1	2	10	69	7	20	50
15	57	7	13	31	90	30	43	72	10	0	1	5	40	1	7	27

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing at Least this Many Reading Objectives



Percent of Students Passing at Least this Many Mathematics Objectives



Additional Information:

IR77-011-9-12 Functional Level Performance Profiles, 1977, James A. Meier, Charlotte J. Eberhart.

76-838 Criterion-referenced Assessment of Mathematics Skills, 1976, Daniel S. Sheehan, Mary Marcus, 92 pages.

76-839 Criterion-referenced Assessment of Reading Skills, 1976, Daniel S. Sheehan, Mary Marcus, 70 pages.

75-626 Overview of the DISD's Criterion-referenced Testing Program in Reading and Mathematics, 1975, Robbie G. Davis, 40 pages.

75-577 Criterion-referenced Mathematics Test: Technical Bulletin, 1975, Robbie G. Davis, Marjorie Lucas Bellinger.

75-576 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Tests, 1975, Robbie G. Davis, 150 pages.

IR77-011-3-12-2

Abstract

Functional Level Performance Profiles 1977
Northeast Subdistrict

Evaluators: James A. Meier
Charlotte J. Eberhart

Purpose: Criterion-referenced functional level performance tests in reading and mathematics tests were administered system-wide in spring, 1977, in grades 8 and 12. The long-range purposes of such testing are to identify individual students in grade 8 who are performing below estimated minimum levels needed in everyday living after leaving school, thus requiring special attention or a special curriculum during high school, as well as to evaluate the eventual success of such attention and curriculum by grade 12. The purpose of this study was to report the results of the 1977 testing.

Sample: All students were tested in grade 8 in February, 1977, and in grade 12 in March, 1977. The schools included are listed as follows.

Grade 8	Grade 12
Gaston	Bryan Adams
Hill	Business
Hood	Health
Long	Madison
	Skyline
	Wilson

Number of Students Tested

Ethnicity	Grade 8	Grade 12
Anglo	1254	1083
Black	608	320
MexAm	208	97
Total	2129	1548

Methodology: The instruments used in testing were the Everyday Skills Tests in Reading and Mathematics, commercially available from McGraw-Hill, and a supplement of 18 test items developed locally by the District to enlarge the set of mathematics objectives tested. The resulting student test records were grouped by school within subdistrict, so that scores could be summarized by schools as well as accumulated for entire subdistricts and for the whole District. Results are reported below only for this subdistrict, not for schools within it.

Each student record was found to contain a valid campus code, tying it to a particular school; thus, no record was excluded for want of school identification. If a record contained an invalid ethnicity code, it was included in ethnicity totals only. If a test-item response field contained anything other than the correct response, it was treated as an incorrect response; thus, invalid and blank responses were regarded as incorrect. Finally, no count was kept of invalid ethnicity codes or invalid item-responses; perhaps there were none.

Objectives Tested: Each test comprised 45 items measuring 15 objectives (three items per objective). These objectives are listed briefly as follows.

Reading	Mathematics
1. Consumer vocabulary	1. Spending behavior
2. Telephone directory	2. Currency
3. Medical instructions	3. Cost comparison
4. Caution labels	4. Time calculation
5. Product ingredients	5. Travel time
6. Preparation directions	6. Discount rate
7. Abbreviation meanings	7. Sales tax
8. Store directories	8. Rate of interest
9. Job want-ads	9. Income tax calculations
Outdoor signs	10. Scaled dimensional drawings
11. Tax forms	11 Graph reading
12. Transportation schedules	12. Arithmetic of fractions
13. Job applications	13. Personal records
14. Driver's handbook	14. Practical approximations
15. Newspaper reporting	15. Metric units of measurement

Assumptions and Limitations:

1. The Everyday Skills Tests had not been administered previously in the District, although the additional 18 mathematics items had been field tested here. The students had been given no special preparation for the tests nor special motivation to do well or ill.

2. District curriculum had not been intentionally designed or implemented to enable students to perform well on the tests. However, results from this testing may lead to curricular modifications for some students to enable them to perform better when retested in future years.

3. The office of system-wide testing had instructed principals and counselors to administer the Everyday Skills Tests in classrooms, whose atmosphere of greater silence and orderliness permits students to perform better. A brief questionnaire

surveying each testing situation was to be completed and returned by the teachers and counselors involved in testing. According to these questionnaires some classes of students were grouped together in large and sometimes noisy lunchrooms and auditoriums, situations in which students were not likely to do their best work.

4. The student was judged to have mastered an objective if he answered correctly at least two of three items measuring the objective. Moreover, it was originally hoped that all or nearly all grade-12 students possessed the skills to pass all 15 objectives on each test.

Results: An analysis of test results supports the following claims.

1. Since the same tests were taken by both grades, grade-12 students performed higher than grade-8, as was to be expected. The total number of test items was 45; the total number of objectives was 15.

Mean Number Passed

	Reading				Mathematics			
Ethnicity	Grade 8		Grade 12		Grade 8		Grade 12	
	It	Ob	It	Ob	It	Ob	It	Ob
Anglo	37	13	43	15	27	9	38	13
Black	26	9	38	13	16	5	28	9
MexAm	31	11	41	14	22	7	34	12
Total	33	12	42	14	24	8	35	12

It = Items Ob = Objectives

2. In grade 8 each reading and mathematics objective was passed by a larger proportion of Anglo students than of Mexican-American students and by a larger proportion of the latter than of black students. In grade 12, reading objectives 3, 5, and 11 and mathematics objectives 1 and 2 were passed by a higher proportion of Mexican-American students, followed by Anglo students and then black students; on the remaining 12 reading objectives and 13 mathematics objectives ethnic proportions ranked as in grade 8.

Proportion of Students Passing All Fifteen Objectives				
	Reading		Mathematics	
Ethnicity	Grade 8	Grade 12	Grade 8	Grade 12
Anglo	50	87	5	31
Black	8	48	0	4
MexAm	16	64	0	9
Total	34	77	3	24

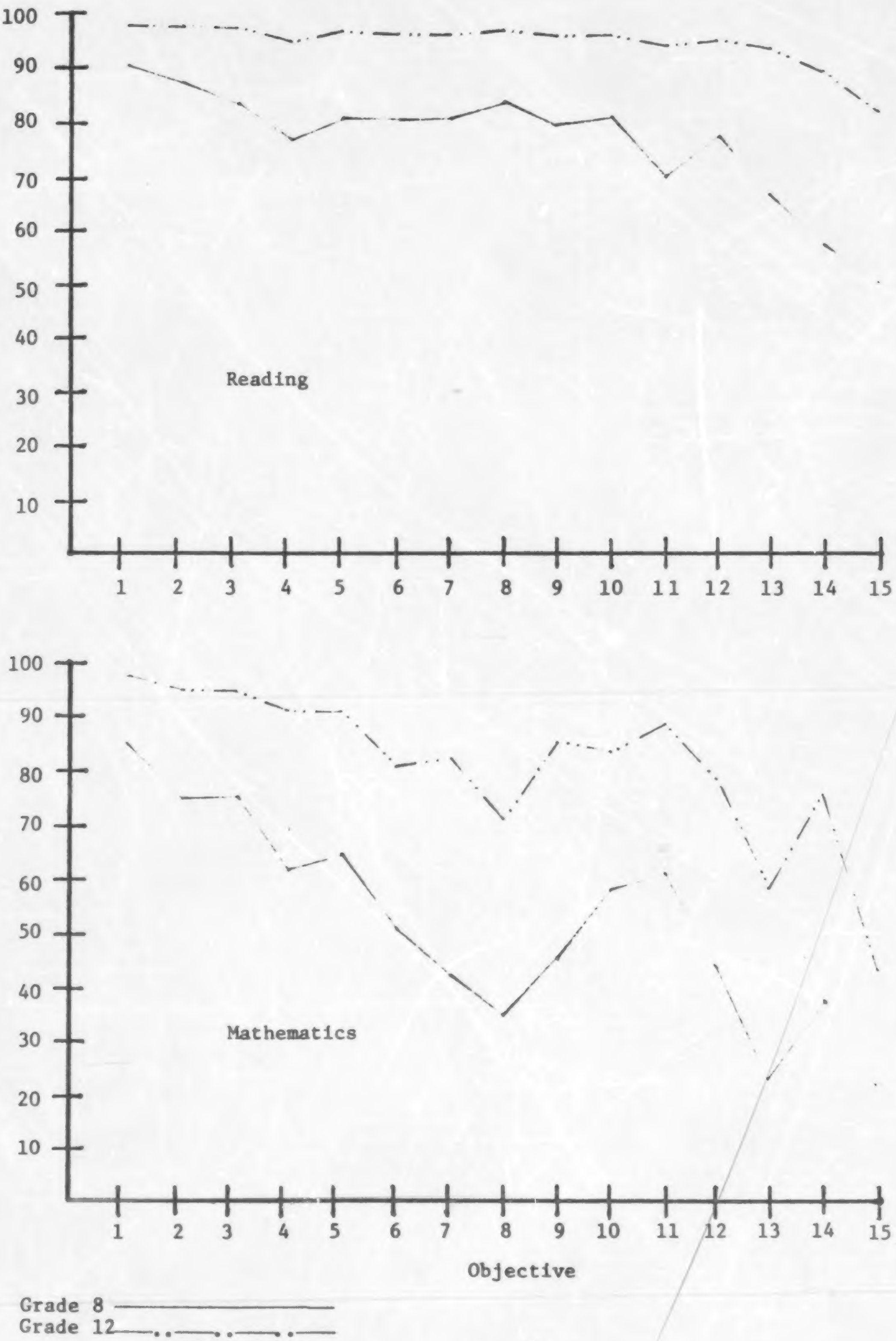
3. In reading, the most difficult objectives proved to be 15 and 14 in both grades and all ethnicities. In mathematics the most difficult objectives were 15 and 13, again in both grades and all ethnicities. Displayed in the graphs below and in their table of ordinates are the proportions of students passing each objective.

Percent of Students Passing Each of Fifteen Objectives

	Reading								Mathematics							
Objective	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	94	84	87	91	99	97	99	99	91	76	85	86	99	95	99	98
2	94	77	88	88	99	95	98	98	83	61	73	76	97	90	98	95
3	93	68	78	84	99	95	99	98	87	54	74	76	98	87	96	96
4	91	55	71	79	99	88	98	96	76	32	60	62	97	71	94	91
5	91	65	78	82	99	95	99	98	78	39	63	65	96	76	94	92
6	91	67	74	82	99	94	98	98	61	31	49	50	88	60	72	81
7	90	68	77	82	99	91	99	97	56	18	32	43	89	59	83	82
8	92	74	78	85	99	95	98	98	45	15	29	34	79	45	65	71
9	90	63	75	80	99	93	98	97	57	25	38	46	91	68	89	86
10	90	67	79	82	99	92	98	97	71	33	53	58	91	62	83	84
11	83	48	64	70	98	86	99	95	74	37	54	61	94	72	86	89
12	88	62	76	79	98	89	97	96	58	20	33	44	88	50	80	80
13	81	46	64	69	98	88	96	96	27	15	15	22	66	33	50	58
14	73	30	47	58	97	71	94	91	48	16	29	37	84	53	69	76
15	68	24	33	51	91	61	73	83	26	12	19	22	49	20	39	43

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing Each Objective



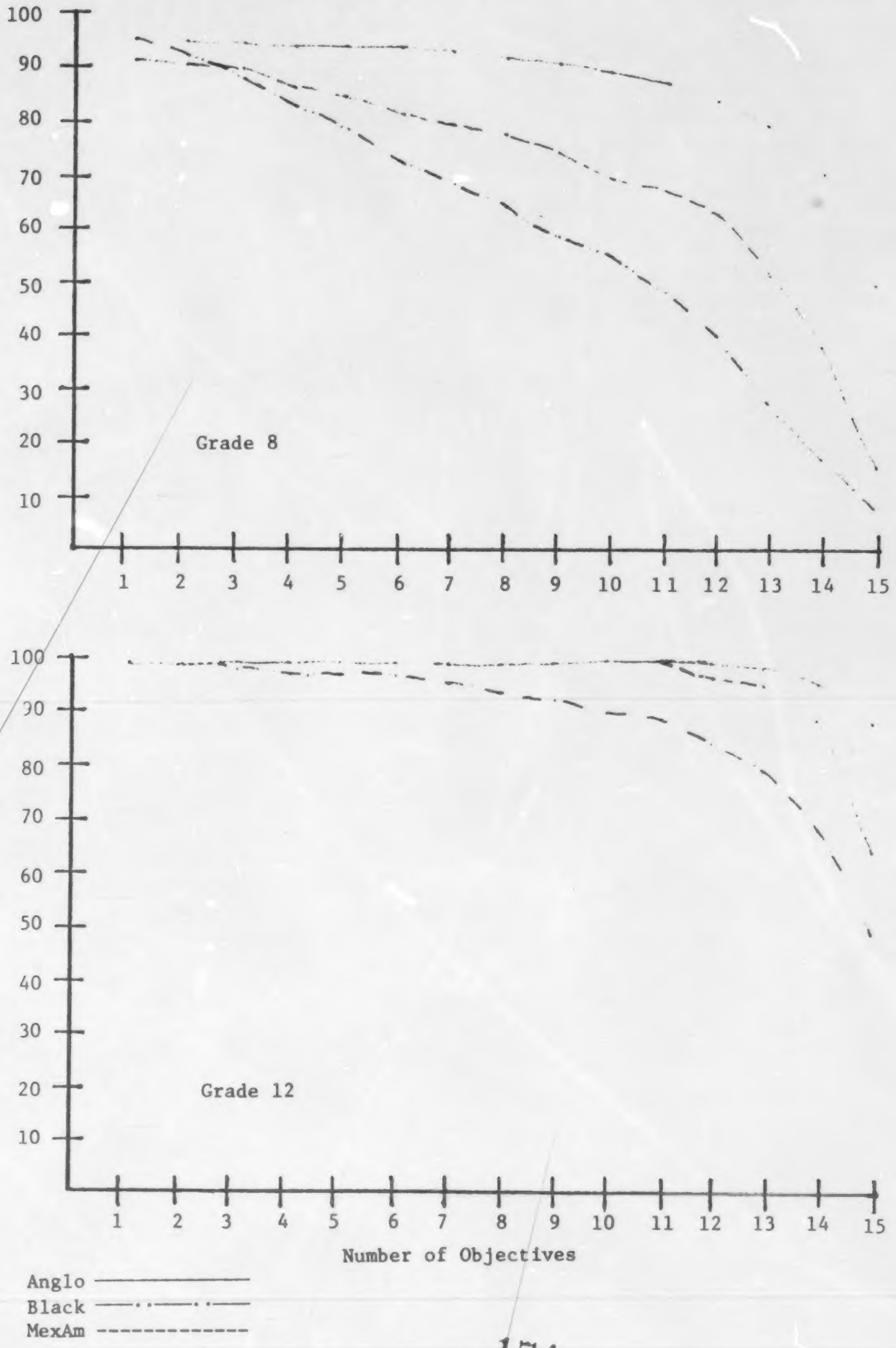
4. It was originally hoped that all or nearly all grade-12 students would possess the skills necessary to pass all 15 objectives in each test. The results of the recent testing indicate that that goal will not be reached without special intervention. Displayed in the graphs below and in their table of ordinates are the decreasing proportions of students passing an increasing number of objectives.

Decreasing Percent of Students Passing an Increasing Number of Objectives

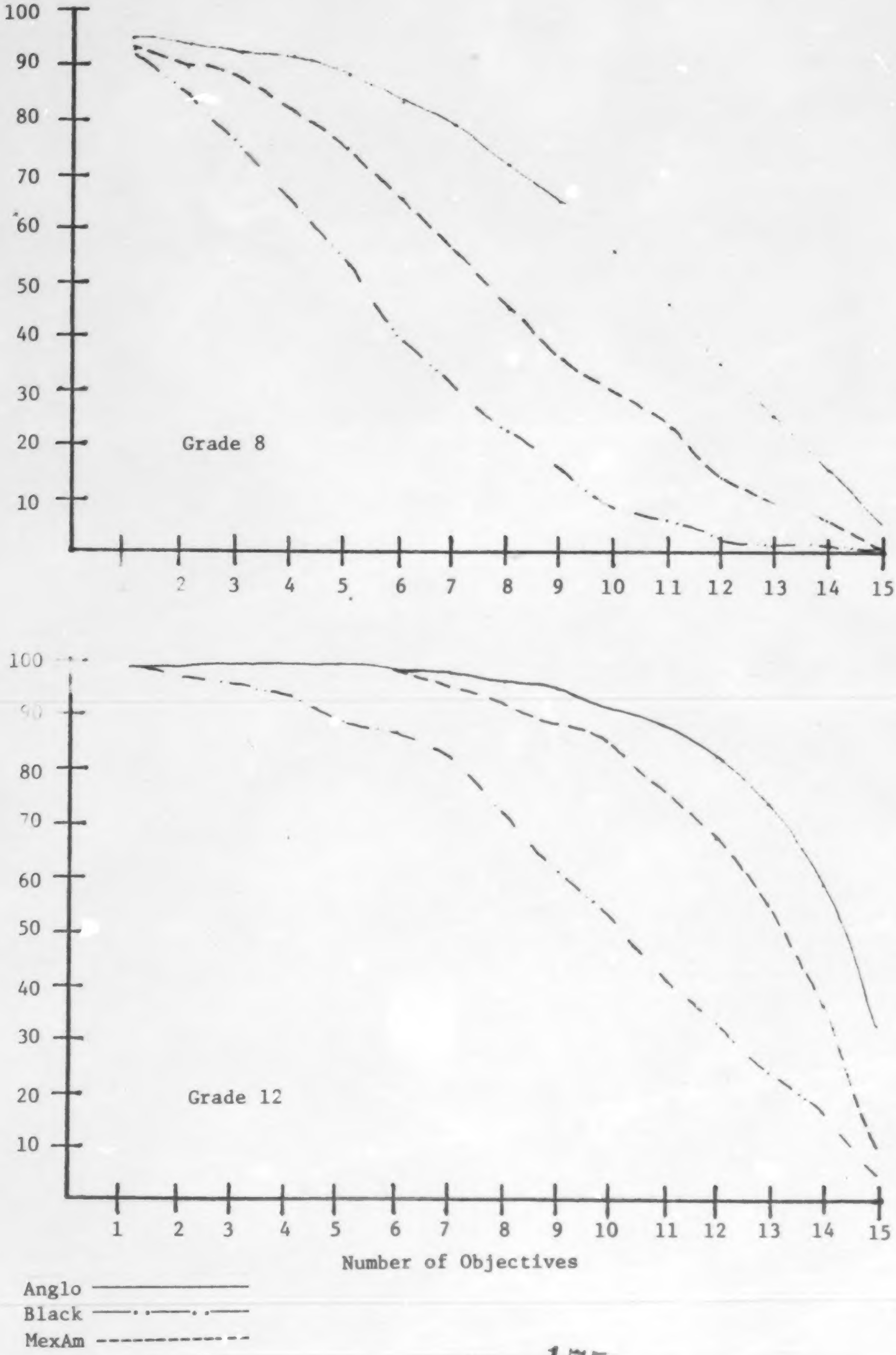
Number of Objectives	Reading								Mathematics							
	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	96	96	92	95	99	99	99	99	94	91	92	93	99	99	99	99
2	96	93	91	94	99	99	99	99	93	84	89	90	99	97	99	99
3	95	88	90	92	99	98	99	99	92	74	87	87	99	96	99	99
4	94	83	86	90	99	97	99	99	91	63	81	82	9	94	99	98
5	94	79	85	89	99	97	99	99	88	52	74	76	99	89	99	97
6	94	73	82	86	99	97	99	99	83	39	65	69	98	87	98	96
7	93	69	80	84	99	96	99	99	79	30	56	62	98	82	96	94
8	92	64	79	82	99	94	99	98	72	21	45	54	96	71	92	91
9	91	59	75	80	99	93	99	98	65	14	36	47	95	60	88	87
10	90	55	70	77	99	90	99	97	56	8	29	39	91	51	84	82
11	88	48	68	74	99	88	99	96	46	5	22	31	87	40	76	77
12	85	40	63	69	99	84	97	95	34	3	13	23	82	32	67	70
13	80	28	52	62	98	79	96	94	24	1	9	16	73	23	54	61
14	71	17	38	51	96	67	89	89	14	1	4	9	57	16	36	47
15	50	8	16	34	87	48	64	77	5	0	0	3	31	4	9	24

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing at Least this Many Reading Objectives



Percent of Students Passing at Least this Many Mathematics Objectives



Additional Information:

IR77-011-9-12 Functional Level Performance Profiles, 1977, James A. Meier, Charlotte J. Eberhart.

76-838 Criterion-referenced Assessment of Mathematics Skills, 1976, Daniel S. Sheehan, Mary Marcus, 92 pages.

76-839 Criterion-referenced Assessment of Reading Skills, 1976, Daniel S. Sheehan, Mary Marcus, 70 pages.

75-626 Overview of the DISD's Criterion-referenced Testing Program in Reading and Mathematics, 1975, Robbie G. Davis, 40 pages.

75-577 Criterion-referenced Mathematics Test: Technical Bulletin, 1975, Robbie G. Davis, Marjorie Lucas Bellinger.

75-576 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Tests, 1975, Robbie G. Davis, 150 pages.

Abstract

Functional Level Performance Profiles 1977
Southwest Subdistrict

Evaluators: James A. Meier
Charlotte J. Eberhart

Purpose: Criterion-referenced functional level performance tests in reading and mathematics tests were administered system-wide in spring, 1977, in grades 8 and 12. The long-range purposes of such testing are to identify individual students in grade 8 who are performing below estimated minimum levels needed in everyday living after leaving school, thus requiring special attention or a special curriculum during high school, as well as to evaluate the eventual success of such attention and curriculum by grade 12. The purpose of this study was to report the results of the 1977 testing.

Sample: All students were tested in grade 8 in February, 1977, and in grade 12 in March, 1977. The schools included are listed as follows.

Grade 8	Grade 12
Atwell	Adamson
Browne	Carter
Greiner	Kimball
Hulcy	Sunset
Stockard	
Storey	

Number of Students Tested

Ethnicity	Grade 8	Grade 12
Anglo	820	554
Black	1611	518
MexAm	503	152
Total	3008	1248

Methodology: The instruments used in testing were the Everyday Skills Tests in Reading and Mathematics, commercially available from McGraw-Hill, and a supplement of 18 test items developed locally by the District to enlarge the set of mathematics objectives tested. The resulting student test records were grouped by school within subdistrict, so that scores could be summarized by schools as well as accumulated for entire subdistricts and for the whole District. Results are reported below only for this subdistrict, not for schools within it.

Each student record was found to contain a valid campus code, tying it to a particular school; thus, no record was excluded for want of school identification. If a record contained an invalid ethnicity code, it was included in ethnicity totals only. If a test-item response field contained anything other than the correct response, it was treated as an incorrect response; thus, invalid and blank responses were regarded as incorrect. Finally, no count was kept of invalid ethnicity codes or invalid item-responses; perhaps there were none.

Objectives Tested: Each test comprised 45 items measuring 15 objectives (three items per objective). These objectives are listed briefly as follows.

Reading

1. Consumer vocabulary
2. Telephone directory
3. Medical instructions
4. Caution labels
5. Product ingredients
6. Preparation directions
7. Abbreviation meanings
8. Store directories
9. Job want-ads
10. Outdoor signs
11. Tax forms
12. Transportation schedules
13. Job applications
14. Driver's handbook
15. Newspaper reporting

Mathematics

1. Spending behavior
2. Currency
3. Cost comparison
4. Time calculation
5. Travel time
6. Discount rate
7. Sales tax
8. Rate of interest
9. Income tax calculations
10. Scaled dimensional drawings
11. Graph reading
12. Arithmetic of fractions
13. Personal records
14. Practical approximations
15. Metric units of measurement

Assumptions and Limitations:

1. The Everyday Skills Tests had not been administered previously in the District, although the additional 18 mathematics items had been field tested here. The students had been given no special preparation for the tests nor special motivation to do well or ill.

2. District curriculum had not been intentionally designed or implemented to enable students to perform well on the tests. However, results from this testing may lead to curricular modifications for some students to enable them to perform better when retested in future years.

3. The office of system-wide testing had instructed principals and counselors to administer the Everyday Skills Tests in classrooms, whose atmosphere of greater silence and orderliness permits students to perform better. A brief questionnaire

surveying each testing situation was to be completed and returned by the teachers and counselors involved in testing. According to these questionnaires some classes of students were grouped together in large and sometimes noisy lunchrooms and auditoriums, situations in which students were not likely to do their best work.

4. The student was judged to have mastered an objective if he answered correctly at least two of three items measuring the objective. Moreover, it was originally hoped that all or nearly all grade-12 students possessed the skills to pass all 15 objectives on each test.

Results: An analysis of test results supports the following claims.

1. Since the same tests were taken by both grades, grade-12 students performed higher than grade-8, as was to be expected. The total number of test items was 45; the total number of objectives was 15.

	Mean Number Passed							
	Reading				Mathematics			
Ethnicity	Grade 8		Grade 12		Grade 8		Grade 12	
	It	Ob	It	Ob	It	Ob	It	Ob
Anglo	37	13	43	15	26	9	37	13
Black	31	11	38	13	19	6	27	9
MexAm	31	11	41	14	21	7	32	11
Total	33	11	41	14	22	7	32	11

It = Items Ob = Objectives

2. In both grades 8 and 12 and on both tests, reading and mathematics, each objective was passed generally by a larger proportion of Anglo students than of Mexican-American students and in turn by a larger proportion of the latter than of black students. However, some exceptions to this pattern are noted here. In grade-8 reading proportionately more black students passed objectives 1, 2, and 3 than Mexican-American students. In grade-8 mathematics proportionately more black students passed objective 1 than Mexican-American students. In grade-12 reading proportionately more Mexican-American students passed objective 1 than Anglo students.

Proportion of Students Passing All Fifteen Objectives

	Reading		Mathematics	
Ethnicity	Grade 8	Grade 12	Grade 8	Grade 12
Anglo	41	83	4	24
Black	10	37	0	2
MexAm	12	59	1	9
Total	19	61	1	13

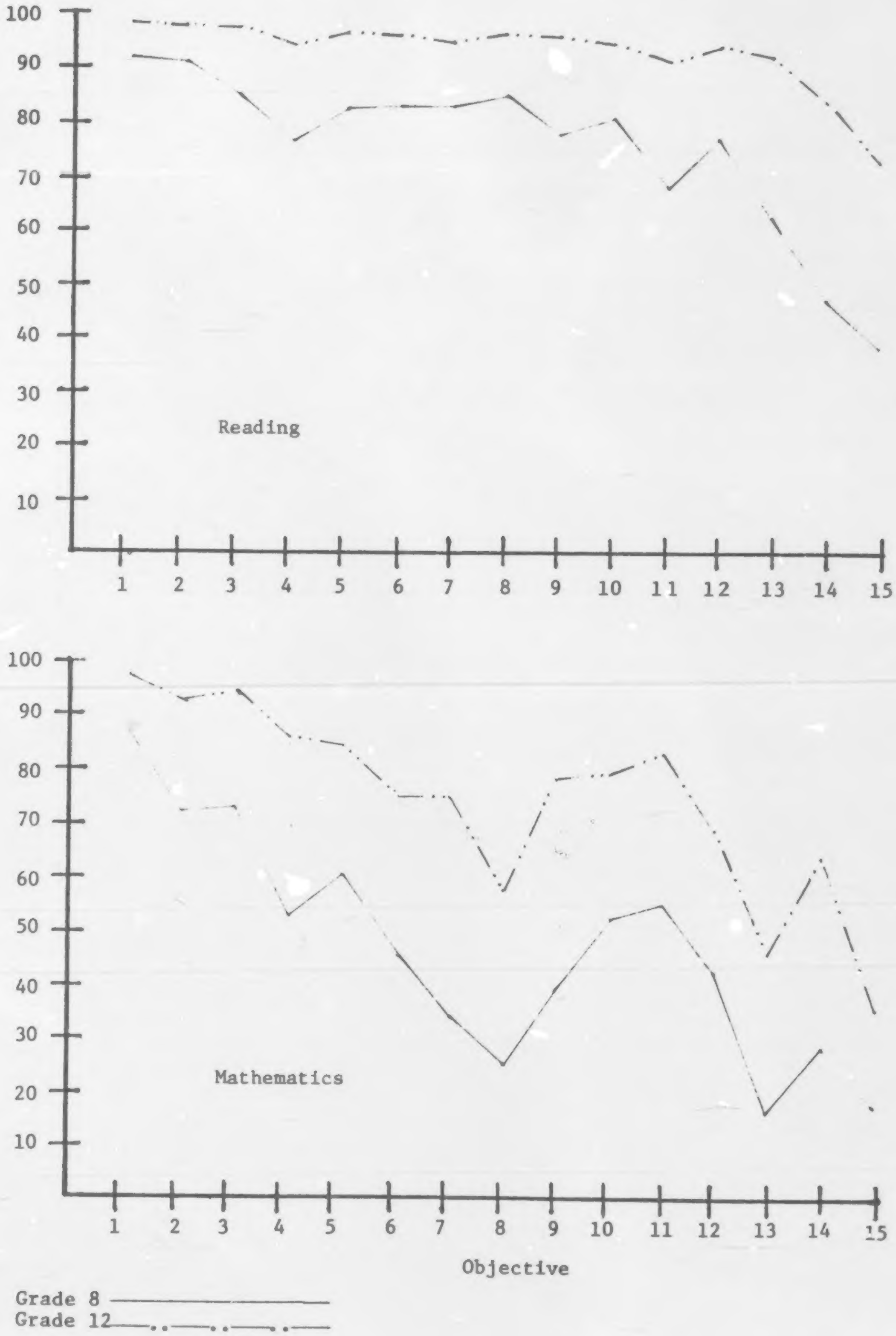
3. In reading, the most difficult objectives proved to be 15 and 14 in both grades and all ethnicities. In mathematics the most difficult objectives were 15 and 13, again in both grades and all ethnicities. Displayed in the graphs below and in their table of ordinates are the proportions of students passing each objective.

Percent of Students Passing Each of Fifteen Objectives

	Reading								Mathematics							
Objective	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	96	93	92	94	99	98	99	99	92	88	85	89	99	96	98	98
2	94	91	90	91	99	96	99	98	82	68	72	73	97	90	95	94
3	93	84	82	86	99	96	99	98	86	67	73	73	99	89	95	94
4	91	70	76	77	99	92	95	95	72	42	53	53	96	74	91	86
5	92	81	82	84	99	95	97	97	76	53	61	61	95	74	89	85
6	91	82	82	84	99	95	98	97	62	36	47	45	88	60	74	75
7	91	81	83	84	99	93	98	97	52	25	30	33	87	60	76	74
8	92	84	85	86	99	96	98	98	37	18	22	24	73	39	58	57
9	89	75	79	79	99	95	98	97	54	34	37	40	91	65	79	79
10	90	78	79	82	99	93	97	96	70	43	54	53	91	65	81	79
11	81	64	68	69	97	87	93	92	72	47	49	54	95	72	79	83
12	89	73	74	78	98	90	95	94	51	22	28	31	87	48	71	69
13	78	58	60	64	98	87	93	93	22	13	14	16	61	27	47	45
14	69	37	45	47	96	70	86	84	43	21	27	28	80	43	59	62
15	62	29	31	38	88	58	74	74	23	13	19	17	47	21	30	34

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing Each Objective



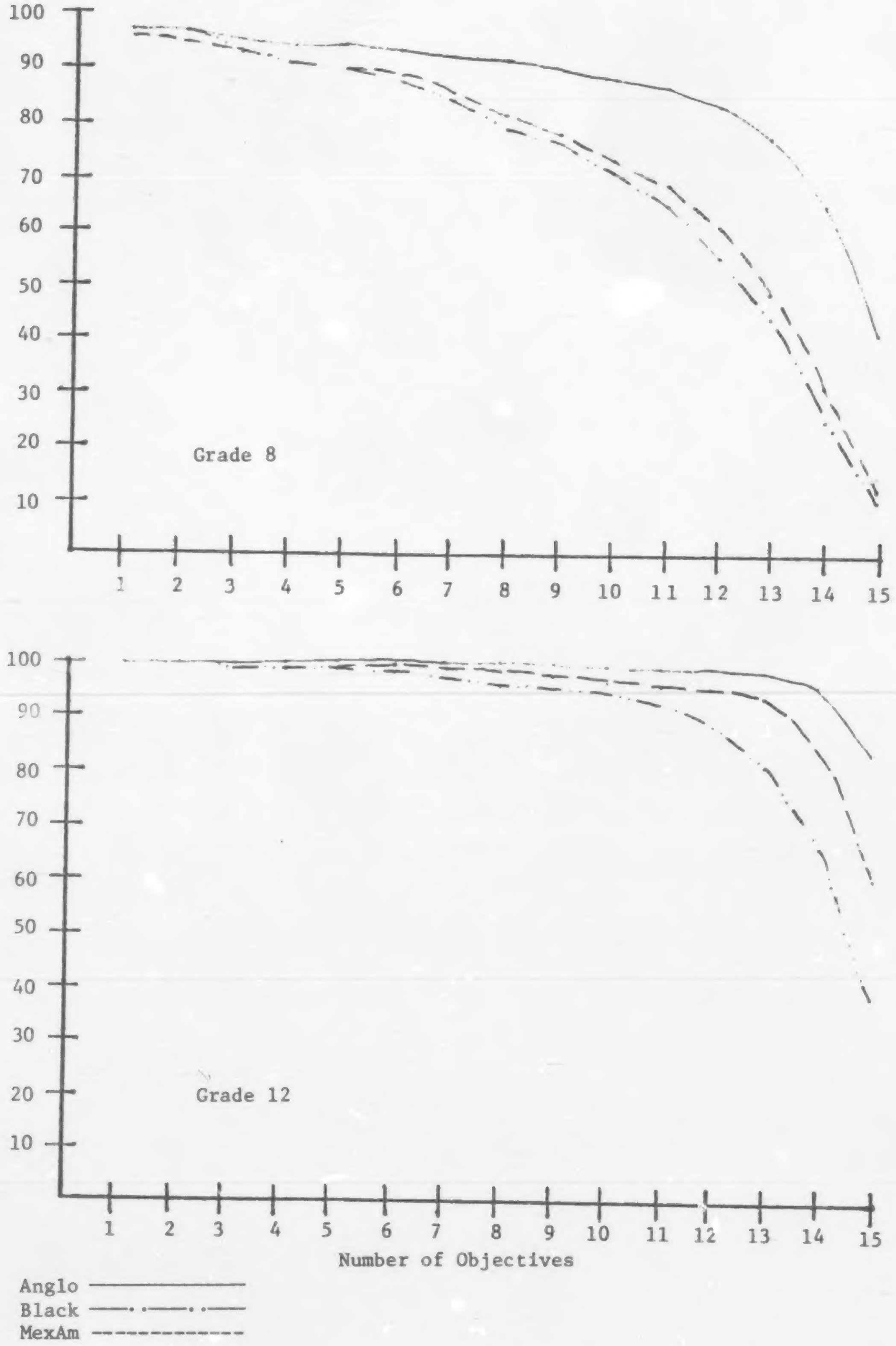
4. It was originally hoped that all or nearly all grade-12 students would have acquired the skills necessary to pass all 15 objectives in each test. The results of the recent testing indicate that that goal will not be reached without special intervention. Displayed in the graphs below and in their table of ordinates are the decreasing proportions of students passing an increasing number of objectives.

Decreasing Percent of Students Passing an Increasing Number of Objectives

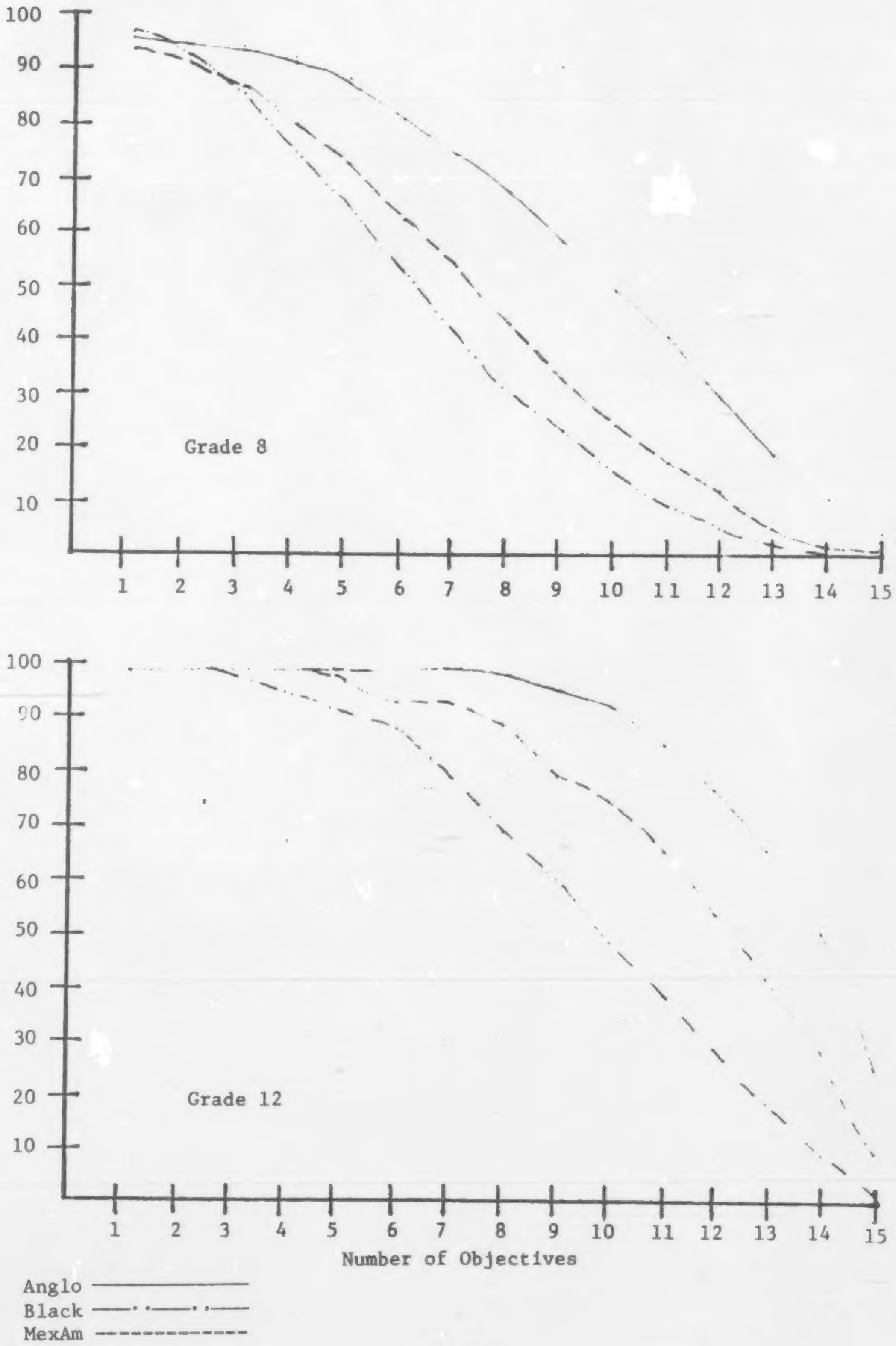
Number of Objectives	Reading								Mathematics							
	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	97	97	96	97	99	99	99	99	96	97	94	96	99	99	99	99
2	97	96	95	96	99	99	99	99	95	93	92	93	99	99	99	99
3	96	94	94	95	99	99	99	99	94	86	87	88	99	98	99	99
4	95	92	93	93	99	99	99	99	92	75	80	80	99	96	99	98
5	95	91	91	92	99	99	99	99	88	64	73	72	99	92	97	96
6	94	88	89	90	99	98	99	99	81	52	62	62	99	88	93	94
7	93	85	86	88	99	97	99	99	75	41	53	53	99	79	93	90
8	92	82	84	85	99	96	99	98	67	30	42	43	98	69	89	85
9	91	78	80	82	99	96	98	98	58	22	32	34	95	60	79	79
10	89	72	75	77	99	95	97	97	49	15	23	26	92	48	74	71
11	87	65	70	72	99	92	97	96	40	9	17	19	85	38	66	63
12	84	56	61	65	99	88	97	94	29	4	11	12	77	28	53	54
13	79	43	50	54	98	80	93	90	18	2	5	7	66	18	41	43
14	66	26	31	38	96	66	84	82	10	0	1	3	50	8	28	30
15	41	10	12	19	83	37	59	61	4	0	1	1	24	2	9	13

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing at Least this Many Reading Objectives



Percent of Students Passing at Least this Many Mathematics Objectives



Additional Information:

IR77-011-9-12 Functional Level Performance Profiles, 1977, James A. Meier, Charleotte J. Eberhart.

76-838 Criterion-referenced Assessment of Mathematics Skills, 1976, Daniel S. Sheehan, Mary Marcus, 92 pages.

76-839 Criterion-referenced Assessment of Reading Skills, 1976, Daniel S. Sheehan, Mary Marcus, 70 pages.

75-626 Overview of the DISD's Criterion-referenced Testing Program in Reading and Mathematics, 1975, Robbie G. Davis, 40 pages.

75-577 Criterion-referenced Mathematics Tests: Technical Bulletin, 1975, Robbie G. Davis, Marjorie Lucas Bellinger.

75-576 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Test, 1975, Robbie G. Davis, 150 pages.

IR77-011-3-12-4

Abstract

Functional Level Performance Profiles 1977
East Oak Cliff Subdistrict

Evaluators: James A. Meier
Charlotte J. Eberhart

Purpose: Criterion-referenced functional level performance tests in reading and mathematics tests were administered system-wide in spring, 1977, in grades 8 and 12. The long-range purposes of such testing are to identify individual students in grade 8 who are performing below estimated minimum levels needed in everyday living after leaving school, thus requiring special attention or a special curriculum during high school, as well as to evaluate the eventual success of such attention and curriculum by grade 12. The purpose of this study was to report the results of the 1977 testing.

Sample: All students were tested in grade 8 in February, 1977, and in grade 12 in March, 1977. The schools included are listed as follows.

Grade 8	Grade 12
Ervin	Roosevelt
Holmes	South Oak Cliff
Storey	
Stone	

Number of Students Tested

Grade 8	Grade 12
2129	685

Methodology: The instruments used in testing were the Everyday Skills Tests in Reading and Mathematics, commercially available from McGraw-Hill, and a supplement of 18 test items developed locally by the District to enlarge the set of mathematics objectives tested. The resulting student test records were grouped by school within subdistrict, so that scores could be summarized by schools as well as accumulated for entire subdistricts and for the whole District. Results are reported below only for this subdistrict, not for schools within it.

Each student record was found to contain a valid campus code, tying it to a particular school; thus, no record was excluded for want of school identification. If a record contained an invalid ethnicity code, it was included in ethnicity totals only. If a test-item response field contained anything other than the correct response, it was treated as an incorrect response; thus, invalid and blank responses were regarded as incorrect. Finally, no count was kept of invalid ethnicity codes or invalid item-responses; perhaps there were none.

Objectives Tested: Each test comprised 45 items measuring 15 objectives (three items per objective). These objectives are listed briefly as follows.

Reading

1. Consumer vocabulary
2. Telephone directory
3. Medical instructions
4. Caution labels
5. Product ingredients
6. Preparation directions
7. Abbreviation meanings
8. Store directories
9. Job want-ads
10. Outdoor signs
11. Tax forms
12. Transportation schedules
13. Job applications
14. Driver's handbook
15. Newspaper reporting

Mathematics

1. Spending behavior
2. Currency
3. Cost comparison
4. Time calculation
5. Travel time
6. Discount rate
7. Sales tax
8. Rate of interest
9. Income tax calculations
10. Scaled dimensional drawings
11. Graph reading
12. Arithmetic of fractions
13. Personal records
14. Practical approximations
15. Metric units of measurement

Assumptions and Limitations:

1. The Everyday Skills Tests had not been administered previously in the District, although the additional 18 mathematics items had been field tested here. The students had been given no special preparation for the tests nor special motivation to do well or ill.

2. District curriculum had not been intentionally designed or implemented to enable students to perform well on the tests. However, results from this testing may lead to curricular modifications for some students to enable them to perform better when retested in future years.

3. The office of system-wide testing had instructed principals and counselors to administer the Everyday Skills Tests in classrooms, whose atmosphere of greater silence and orderliness permits students to perform better. A brief questionnaire

surveying each testing situation was to be completed and returned by the teachers and counselors involved in testing. According to these questionnaires some classes of students were grouped together in large and sometimes noisy lunchrooms and auditoriums, situations in which students were not likely to do their best work.

4. The student was judged to have mastered an objective if he answered correctly at least two of three items measuring the objective. Moreover, it was originally hoped that all or nearly all grade-12 students possessed the skills to pass all 15 objectives on each test.

Results: An analysis of test results supports the following claims.

1. Since the same tests were taken by both grades, grade-12 students performed higher than grade-8, as was to be expected. The total number of test items was 45; the total number of objectives was 15.

Mean Number Passed

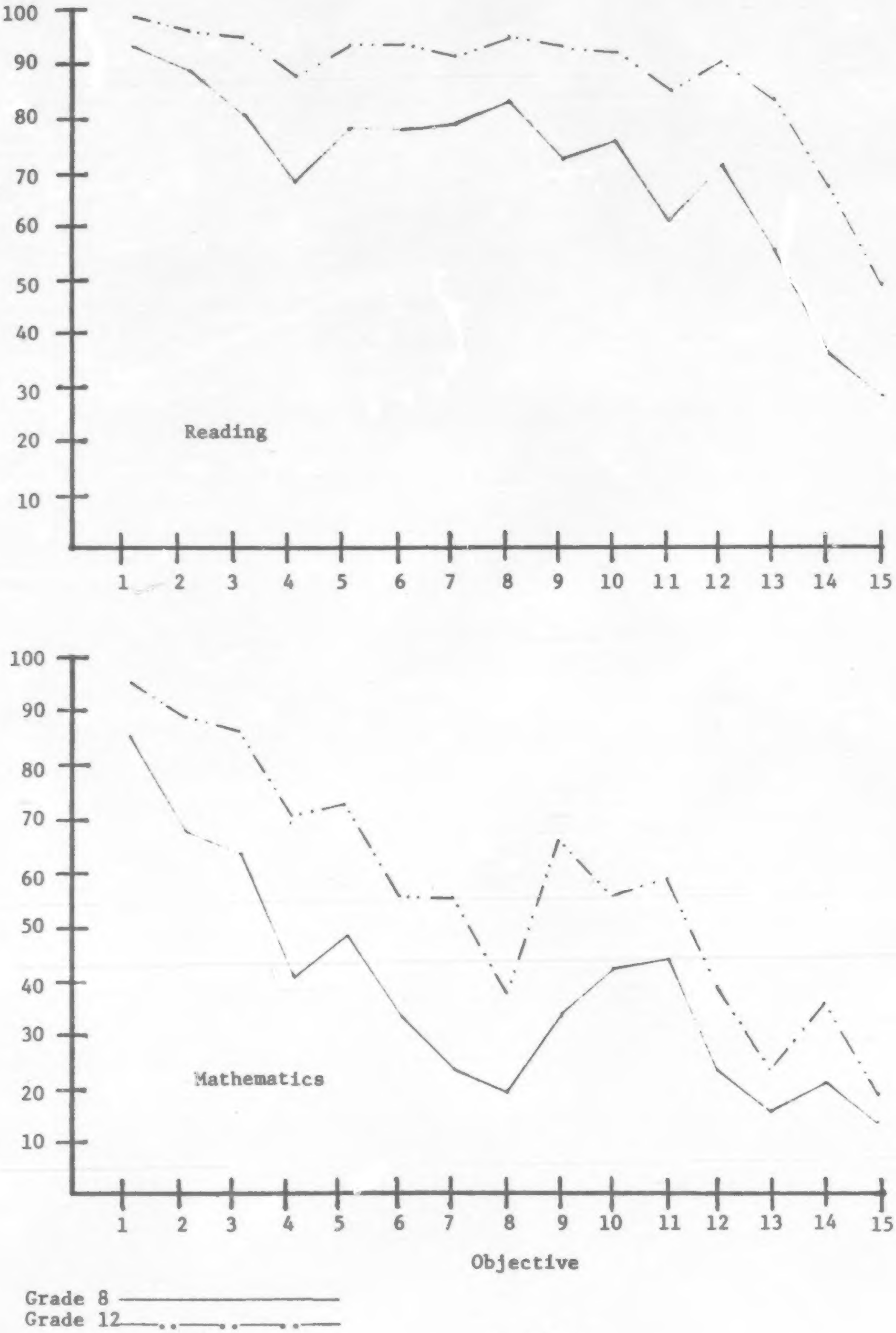
	Reading		Mathematics	
	Grade 8	Grade 12	Grade 8	Grade 12
Items	30	37	19	26
Objectives	10	13	6	9

2. In reading, the most difficult objectives proved to be 15 and 14 in both grades. In mathematics the most difficult objectives were 15 and 13, again in both grades. Displayed in the graphs below and in their table of ordinates are the proportions of students passing each objective.

Proportion of Students Passing Each of Fifteen Objectives

	Reading		Mathematics	
Objective	Grade 8	Grade 12	Grade 8	Grade 12
1	93	99	85	96
2	89	96	68	89
3	80	95	63	87
4	68	88	40	70
5	78	93	47	72
6	78	93	32	56
7	79	91	24	56
8	83	95	19	37
9	73	93	32	66
10	76	92	41	55
11	61	85	42	58
12	71	90	22	38
13	55	83	15	[illegible]
14	35	67	20	35
15	28	50	12	18

Percent of Students Passing Each Objective

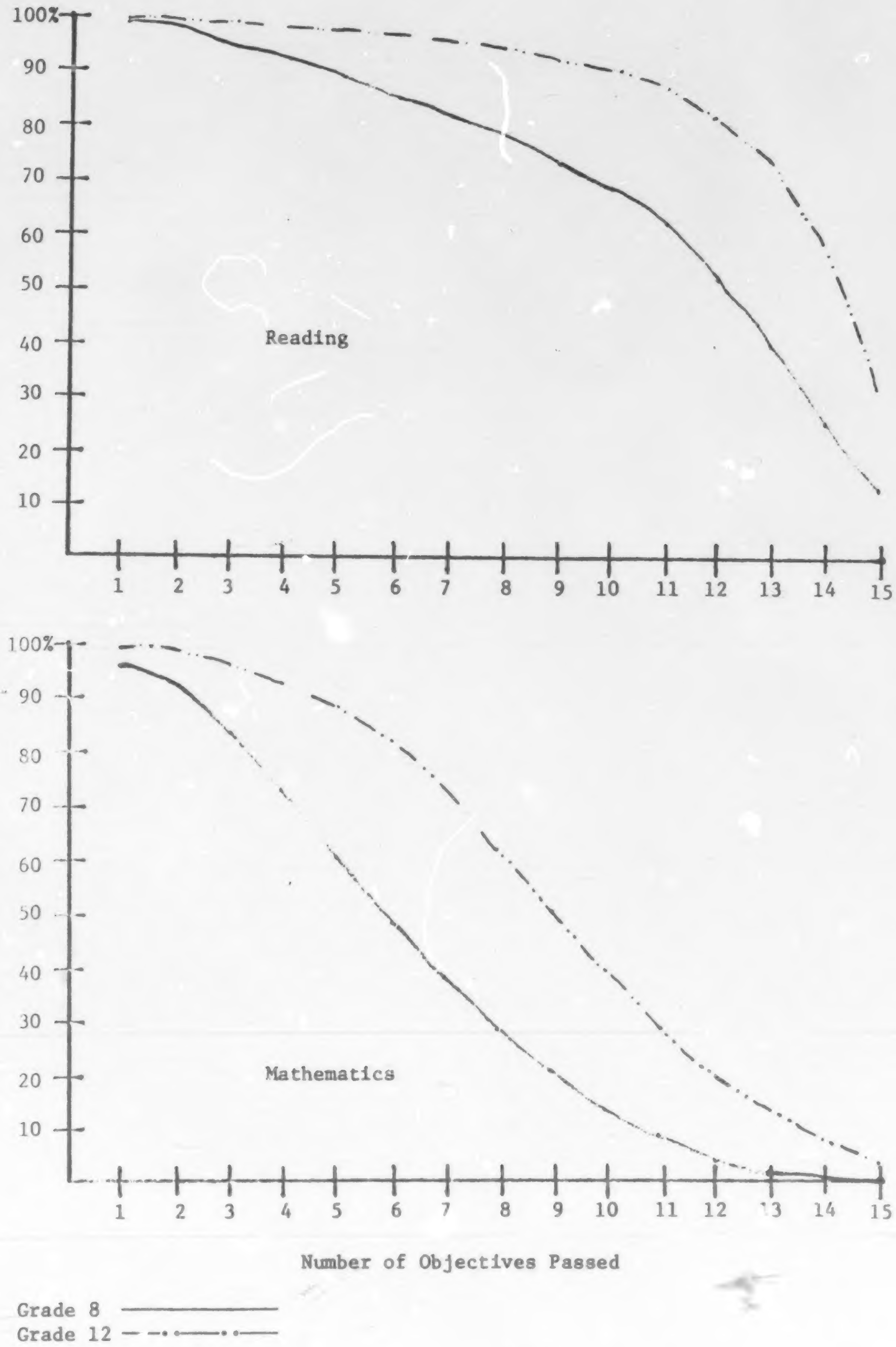


3. It was originally hoped that all or nearly all grade-12 students would possess the skills necessary to pass all 15 objectives in each test. The results of the recent testing indicate that that goal will not be reached without special intervention. Displayed in the graphs below and in their table of ordinates are the decreasing proportions of students passing an increasing number of objectives, without ethnicity breakdown.

Decreasing Proportion of Students Passing an Increasing Number of Objectives

Number of Objectives	Reading		Mathematics	
	Grade 8	Grade 12	Grade 8	Grade 12
1	98	100	97	99
2	97	99	92	99
3	94	99	83	96
4	92	99	72	93
5	89	98	60	88
6	85	97	48	82
7	82	96	38	73
8	78	95	28	61
9	73	94	20	50
10	68	91	13	40
11	61	88	8	29
12	52	83	4	20
13	39	77	1	13
14	24	60	1	8
15	11	33	0	3

Percent of Students Passing at Least this Many Objectives



Additional Information:

IR77-011-9-12 Functional Level Performance Profiles, 1977, James A. Meier, Charlotte J. Eberhart.

76-838 Criterion-referenced Assessment of Mathematics Skills, 1976, Daniel S. Sheehan, Mary Marcus, 92 pages.

76-839 Criterion-referenced Assessment of Reading Skills, 1976, Daniel S. Sheehan, Mary Marcus, 70 pages.

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75-577 Criterion-referenced Mathematics Test: Technical Bulletin, 1975, Robbie G. Davis, Marjorie Lucas Bellinger.

85-576 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Tests, 1975, Robbie G. Davis, 150 pages.

IR77-011-3-12-5

Abstract

Functional Level Performance Profiles 1977
Southeast Subdistrict

Evaluators: James A. Meier
Charlotte J. Eberhart

Purpose: Criterion-referenced functional level performance tests in reading and mathematics tests were administered system-wide in spring, 1977, in grades 8 and 12. The long-range purposes of such testing are to identify individual students in grade 8 who are performing below estimated minimum levels needed in everyday living after leaving school, thus requiring special attention or a special curriculum during high school, as well as to evaluate the eventual success of such attention and curriculum by grade 12. The purpose of this study was to report the results of the 1977 testing.

Sample: All students were tested in grade 8 in February, 1977, and in grade 12 in March, 1977. The schools included are listed as follows.

Grade 8	Grade 12
Anderson	Lincoln
Comstock	Samuell
Florence	Seagoville
Hood	Spruce
Seagoville	

Number of Students Tested

Ethnicity	Grade 8	Grade 12
Anglo	995	464
Black	708	316
MexAm	143	44
Total	1887	832

Methodology: The instruments used in testing were the Everyday Skills Tests in Reading and Mathematics, commercially available from McGraw-Hill, and a supplement of 18 test items developed locally by the District to enlarge the set of mathematics objectives tested. The resulting student test records were grouped by school within subdistrict, so that scores could be summarized by schools as well as accumulated for entire subdistricts and for the whole District. Results are reported below only for this subdistrict, not for schools within it.

Each student record was found to contain a valid campus code, tying it to a particular school; thus, no record was excluded for want of school identification. If a record contained an invalid ethnicity code, it was included in ethnicity totals only. If a test-item response field contained anything other than the correct response, it was treated as an incorrect response; thus, invalid and blank responses were regarded as incorrect. Finally, no count was kept of invalid ethnicity codes or invalid item-responses; perhaps there were none.

Objectives Tested: Each test comprised 45 items measuring 15 objectives (three items per objective). These objectives are listed briefly as follows.

Reading

1. Consumer vocabulary
2. Telephone directory
3. Medical instructions
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5. Product ingredients
6. Preparation directions
7. Abbreviation meanings
8. Store directories
9. Job want-ads
10. Outdoor signs
11. Tax forms
12. Transportation schedules
13. Job applications
14. Driver's handbook
15. Newspaper reporting

Mathematics

1. Spending behavior
2. Currency
3. Cost comparison
4. Time calculation
5. Travel time
6. Discount rate
7. Sales tax
8. Rate of interest
9. Income tax calculations
10. Scaled dimensional drawings
11. Graph reading
12. Arithmetic of fractions
13. Personal records
14. Practical approximations
15. Metric units of measurement

Assumptions and Limitations:

1. The Everyday Skills Tests had not been administered previously in the District, although the additional 18 mathematics items had been field tested here. The students had been given no special preparation for the tests nor special motivation to do well or ill.

2. District curriculum had not been intentionally designed or implemented to enable students to perform well on the tests. However, results from this testing may lead to curricular modifications for some students to enable them to perform better when retested in future years.

3. The office of system-wide testing had instructed principals and counselors to administer the Everyday Skills Tests in classrooms, whose atmosphere of greater silence and orderliness permits students to perform better. A brief questionnaire

surveying each testing situation was to be completed and returned by the teachers and counselors involved in testing. According to these questionnaires some classes of students were grouped together in large and sometimes noisy lunchrooms and auditoriums, situations in which students were not likely to do their best work.

4. The student was judged to have mastered an objective if he answered correctly at least two of three items measuring the objective. Moreover, it was originally hoped that all or nearly all grade-12 students possessed the skills to pass all 15 objectives on each test.

Results: An analysis of test results supports the following claims.

1. Since the same tests were taken by both grades, grade-12 students performed higher than grade-8, as was to be expected. The total number of test items was 45; the total number of objectives was 15.

Mean Number Passed

Ethnicity	Reading Grade 8 It	Reading Grade 8 Ob	Reading Grade 12 It	Reading Grade 12 Ob	Mathematics Grade 8 It	Mathematics Grade 8 Ob	Mathematics Grade 12 It	Mathematics Grade 12 Ob
Anglo	37	13	42	15	26	9	35	12
Black	29	10	36	13	19	6	25	8
MexAm	33	12	39	14	23	7	28	10
Total	34	12	40	14	23	7	31	11

It = Items   Ob = Objectives

2. In both grades 8 and 12 and on both tests, reading and mathematics, each objective was passed generally by a larger proportion of Anglo students than of Mexican-American students and in turn by a larger proportion of the latter than of black students. However, in grade-12 reading proportionately more Mexican-American students passed objectives 1, 2, 3, 7, and 8 than Anglo students.

Proportion of Students Passing All Fifteen Objectives

	Reading		Mathematics	
Ethnicity	Grade 8	Grade 12	Grade 8	Grade 12
Anglo	40	79	2	15
Black	11	28	0	1
MexAm	21	36	2	4
Total	27	58	1	9

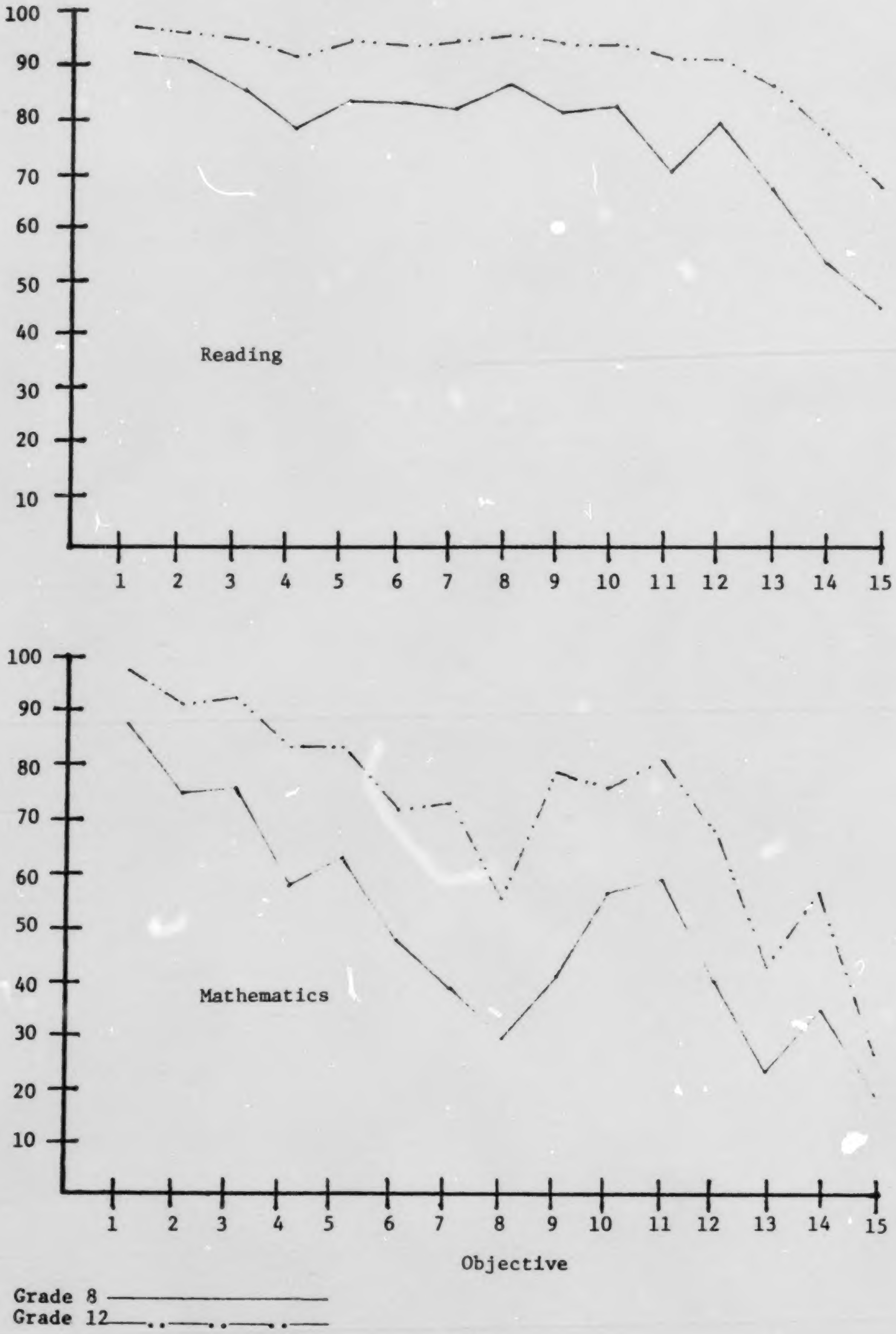
3. In reading the most difficult objectives proved to be 15 and 14 in both grades and all ethnicities. In mathematics the most difficult objectives were 15 and 13, again in both grades and all ethnicities. Displayed in the graphs below and in their table of ordinates are the proportions of students passing each objective.

Percent of Students Passing Each of Fifteen Objectives

	Reading								Mathematics							
Objective	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	97	89	92	93	99	96	99	98	91	82	87	87	98	95	98	97
2	95	84	92	91	99	93	99	97	79	66	75	74	95	86	89	91
3	92	76	86	85	98	91	99	96	84	62	74	75	97	84	87	92
4	90	62	81	79	98	84	91	92	70	37	61	57	93	69	84	83
5	93	71	87	84	99	91	95	96	74	46	65	62	91	72	77	83
6	91	74	85	84	98	89	98	95	57	35	40	47	84	54	54	71
7	90	72	87	83	99	90	99	96	49	24	27	38	87	50	75	72
8	94	79	87	87	99	93	99	97	36	18	27	28	69	35	41	55
9	90	71	83	82	98	91	93	95	48	29	39	40	88	63	84	78
10	91	74	79	83	99	89	93	95	66	38	57	55	90	55	68	76
11	82	57	71	71	97	84	89	92	69	44	55	58	91	66	75	80
12	86	71	77	80	98	85	86	92	51	24	34	39	85	42	57	67
13	79	54	61	68	96	78	84	88	26	17	18	22	54	24	25	41
14	68	34	49	36	94	57	66	79	42	22	29	33	71	35	39	56
15	58	32	54	46	86	45	57	69	20	14	19	18	31	16	16	25

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing Each Objective



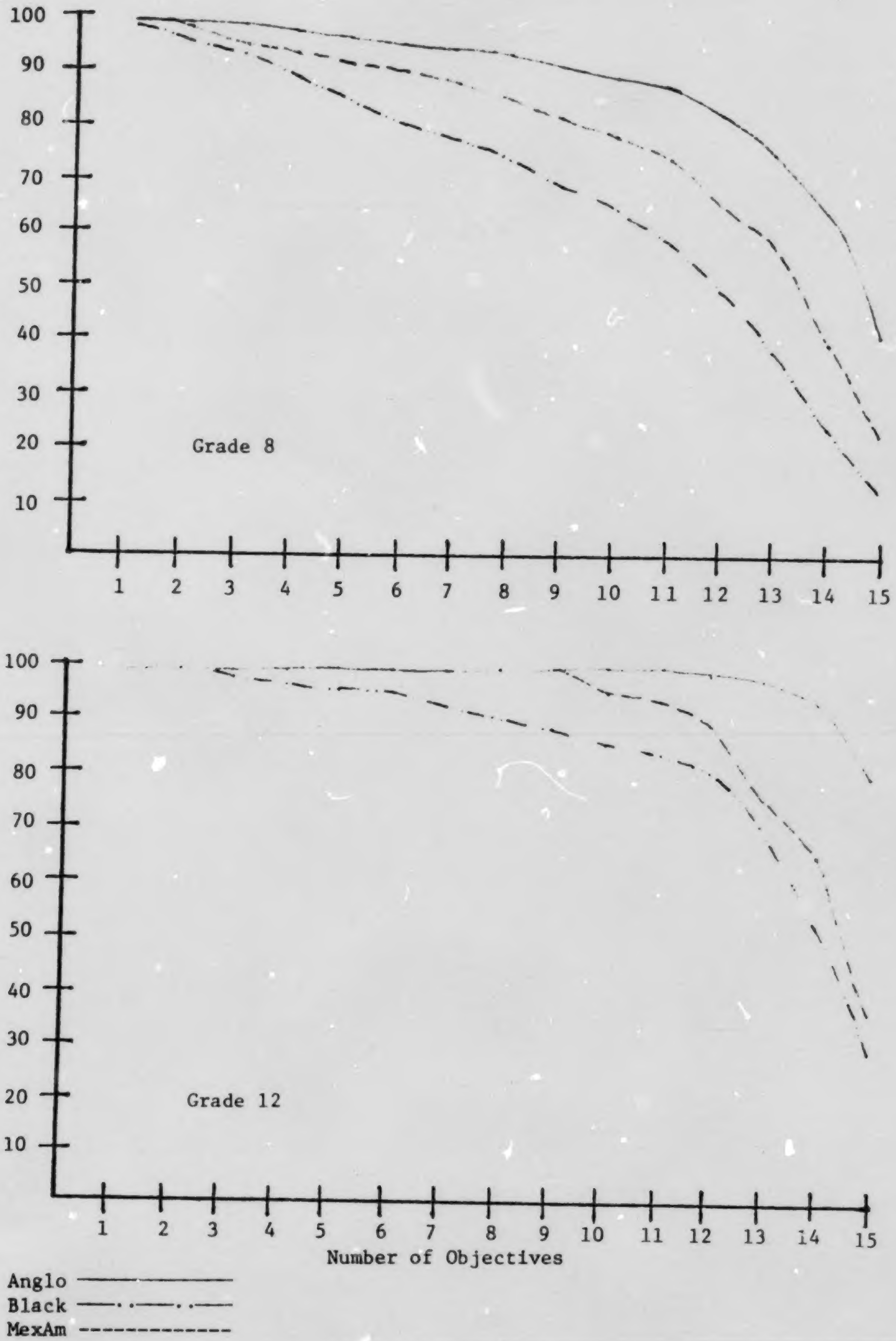
4. It was originally hoped that all or nearly all grade-12 students would have acquired the skills necessary to pass all 15 objectives in each test. The results of the recent testing indicate that that goal will not be reached without special intervention. Displayed in the graphs below and in their table of ordinates are the decreasing proportions of students passing an increasing number of objectives.

Decreasing Percent of Students Passing an Increasing Number of Objectives

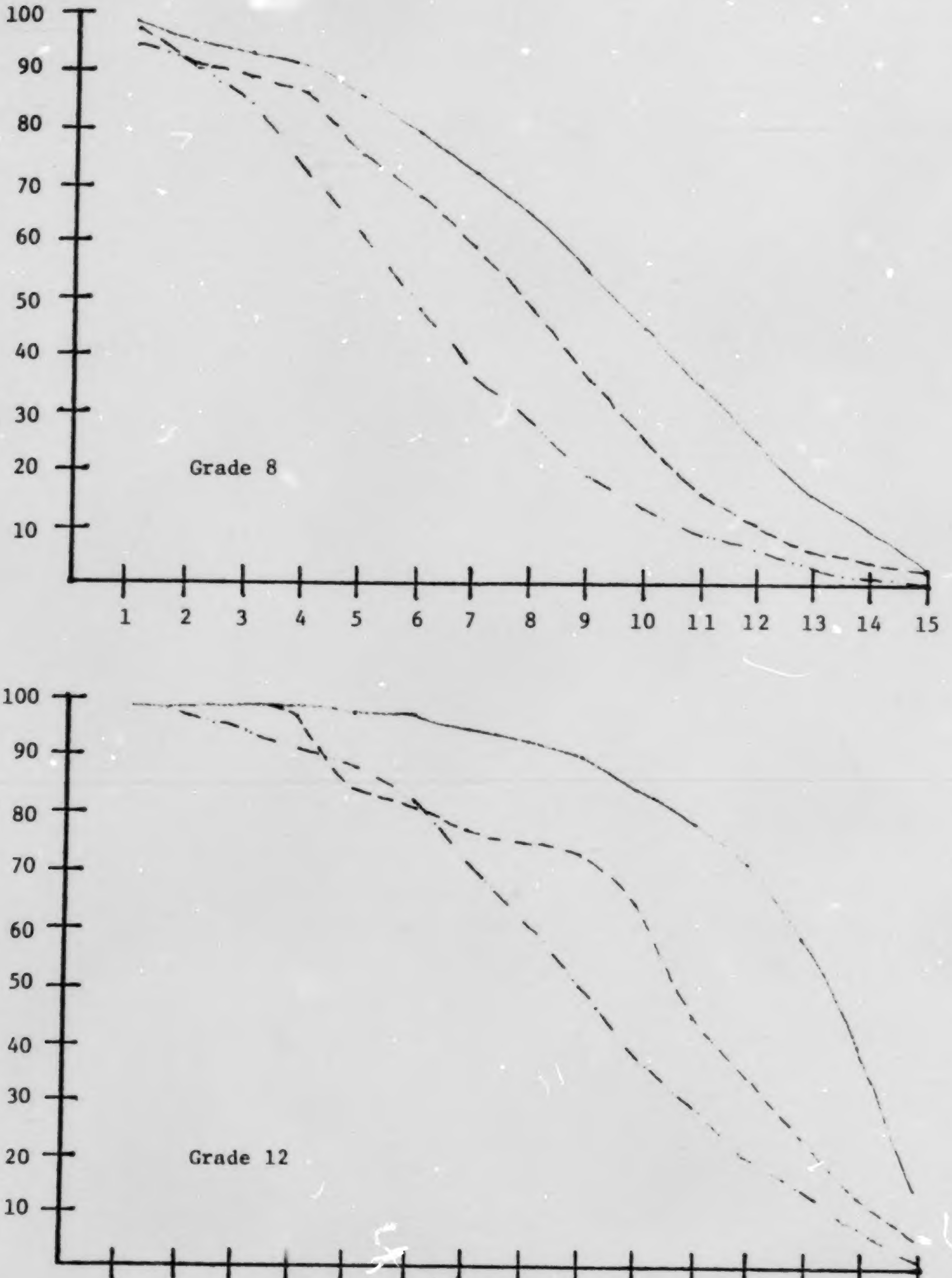
Number of Objectives	Reading								Mathematics							
	Grade 8				Grade 12				Grade 8				Grade 12			
	A	B	M	T	A	B	M	T	A	B	M	T	A	B	M	T
1	99	98	98	98	99	99	99	99	98	95	97	97	99	99	99	99
2	99	96	98	97	99	99	99	99	96	91	91	94	99	98	99	99
3	98	93	95	95	99	98	99	99	93	84	89	89	99	95	99	98
4	97	88	93	93	99	97	99	99	91	72	87	83	99	91	98	96
5	96	84	91	91	99	96	99	98	86	60	75	75	98	88	84	93
6	95	80	90	89	99	96	99	98	79	47	68	66	98	82	82	91
7	94	77	87	87	99	92	99	97	72	36	59	57	96	71	77	85
8	93	74	85	85	99	90	99	96	64	28	47	49	93	61	75	80
9	91	69	81	82	99	88	99	95	54	18	35	39	90	50	73	74
10	89	64	78	78	99	86	95	94	44	12	25	31	86	38	64	67
11	87	57	74	74	99	83	93	93	34	8	15	22	79	29	45	59
12	82	48	65	67	98	80	89	90	24	5	10	15	72	20	34	50
13	75	37	57	59	97	70	75	85	15	2	6	9	59	14	23	40
14	63	23	39	46	93	52	64	76	9	1	3	5	40	7	11	26
15	40	11	21	27	79	28	36	58	2	0	2	1	16	1	4	9

A = Anglo B = Black M = Mexican-American T = Total

Percent of Students Passing at Least this Many Reading Objectives



Percent of Students Passing at Least this Many Mathematics Objectives



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Additional Information:

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75-626 Overview of the DISD's Criterion-referenced Testing Program in Reading and Mathematics, 1975, Robbie G. Davis, 40 pages.

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75-576 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Test, 1975, Robbie G. Davis, 150 pages.

Abstract

Quasi-longitudinal Norm-referenced Achievement Profiles, 1971-76

Evaluators: Susan J. Whitmore and James A. Meier

Purpose: In recent years a small but consistent decline in median standardized achievement scores has been observed in many of the District's schools. In response, a longitudinal study was commissioned to track this trend by grade and school over the years 1971-76 and to note whether the trend in achievement scores was accompanied by District trends in factors related to achievement, such as student attendance and mobility, student and teacher racial composition, and teacher attributes.

Sample: This study is based upon test scores of all students tested in the Subdistrict in Grades 2, 4, 6, 8, 9, and 12 in 1971 through 1976 (in Grade 2 the norm scores have been lost for the year 1971). Testing was conducted in the fall during these years, except for Grade 12, whose 1973 testing was conducted in April, 1974. Test instrumentation can be charted as follows.

Test Instruments

Grade	1971-73	1974-76
2	CAT	ITBS
4	CTBS	ITBS
6	CTBS	ITBS
8	CTBS	ITBS
9	ITED	ITED
12	ITED	ITED

CAT = California Achievement Tests
CTBS = Comprehensive Tests of Basic Skills
ITBS = Iowa Tests of Basic Skills
ITED = Iowa Tests of Educational Development

Design: Achievement results were reported in two ways. First, the median score and the interquartile range were graphed on a percentile scale. Secondly, the percentage of local students occurring in each quartile and decile interval of the large-city norm group were computed and displayed. The median is defined as that score below which one-half of the students

achieved. The interquartile range is defined as that spread of scores achieved by the middle half of the students.

In the norm group the median is always placed at the 50th percentile, the interquartile range always extends from the 25th to the 75th percentiles, the percentage of students occurring in each quartile interval is always 25, and the percentage of students occurring in each decile interval is always 10. Thus, it is possible to compare directly the performance of a group of local students in a particular grade in this subdistrict with that of students in the norm group.

The charts displaying these achievement statistics are sequenced by subtest within grade. The left column contains the year and the number, N, of students tested in that year. The next four columns contain the quartile distribution of scores for each year; i.e., the percentages of N occurring in each large-city quartile interval. In reading across these columns from left to right one should interpret the four percentages in this order: (1) the percentage of N scoring in the same interval as did the lowest 25 percent of the large-city norm group, (2) the percentage of N scoring in the same interval as did the next 25 percent of the norm group, etc.

The remaining columns contain two kinds of information on score distributions. First, the dashed line spans the interquartile range of scores, its left end indicating the percentile score below which the lowest 25 percent of the scores occurred, its right end indicating the percentile score above which the highest 25 percent of the scores occurred, and the vertical stroke between them indicating the median percentile score, above and below which 50 percent of the scores occurred. The varying lengths of the dashed lines indicate the relative dispersions of scores in successive years; a relatively long line represents a broader spread of scores over the scale, while a relatively short line represents a narrower spread.

Secondly, the row of numbers below each dashed line contains the decile distribution of scores for each year; i.e., the ten percentages of N occurring in each large-city decile interval. In reading from left to right one should interpret these ten percentages in this order: (1) the percentage of N scoring in the same interval as did the lowest 10 percent of the large-city norm group, (2) the percentage of N scoring in the same interval as did the next 10 percent of the norm group, etc.

After the 1976 achievement entry a final entry shows the performance of the norm group. Reference to it will enable one to verify his grasp of the meaning of the numbers, dashed lines, and vertical strokes above it.

It is important that achievement performance be interpreted in light of specific related factors. These related factors are presented in the form of two types of charts: (1) Student characteristics estimated for grades 2, 4, 6, 8, 9, and 12; and (2) Teacher characteristics for elementary and secondary schools.

With the reorganization of schools in the 1976-77 school year, a six-year trend analysis would not be meaningful unless grade level background information and teacher data were available for all grades. It is difficult at best to classify teachers by grade, so they were summarized separately for elementary level schools (grades K through 6) and secondary level schools (grade 7 through 12). Student background information was not readily available for the past six years by grade level, so that an adjustment of the school level information was made based on the HEW enrollment figures for each grade level. This adjustment sought to apportion the characteristics equally to each grade level and to present a specific grade's proportion of the whole based on its proportion of the total enrollment. Because these numbers are the best estimates of grade level statistics available, the following definitions of related factors are dependent on them.

1. Average Daily Membership During Year: The average number of students actively enrolled on any given day during the year.

   This was computed from six-week attendance reports provided by the District's Office of Pupil Accounting. In computing the average daily membership, all withdrawn and reentered students during a given six-week attendance period were assumed to have been actively enrolled for exactly half the period. The formula used in this calculation is given below.

$$ADM = [\sum_{i=1}^{6} D_i E_i - (\sum_{i=1}^{6} D_i W_i + \sum_{i=1}^{6} D_i R_i)/2] / \sum_{i=1}^{6} D_i,$$

where

D_i = number of days during attendance period i,

E_i = reported enrollment during attendance period i,

W_i = number of withdrawn students during attendance period i, and

R_i = number of reentered students during attendance period i.

2. Average Daily Attendance: The average number of students in attendance on any given day during the year.

3. Index of Average Daily Attendance: The ratio of average daily attendance to average daily membership, multiplied by 100. This is the percentage of the actively enrolled students who, on the average, were in attendance on any given day.

4. Average Daily Transactions: The average number of student transfers (in and out), withdrawals, reentries, and new students on any given day during the year.

5. Index of Average Daily Transactions: The ratio of average daily transactions to average daily membership, multiplied by 100. This is the percentage of the enrolled students who, on the average, were involved in a transaction in the District on any given day.

6. Index of School Attraction: The ratio of net gain or loss of students through the above transactions to average daily membership, multiplied by 100. Students are gained if they transfer in, reenter, or are a new student; students are lost if they transfer out or withdraw. A net gain occurs when more students enter than leave. This index is the percentage of the enrolled students who, on the average, were attracted to (if +) or repelled from (if -) schools on any given day.

7. Enrollment by Ethnicity: These figures are based on the data supplied to HEW each year on October 15th.

   a. Percent other: The percentage of Anglo and other students among the total enrollment.

   b. Percent black: The percentage of black students among the total enrollment.

   c. Percent Mexican-American: The percentage of Mexican-American students among the total enrollment.

   d. Percent American-Indian: The percentage of American-Indian students among the total enrollment.

   e. Percent Oriental: The percentage of Oriental students among the total enrollment.

8. Number of Dropouts per 100: The percentage of dropouts among the average daily membership. Dropouts were defined differently for 1975-76 than for past years, and interpretation of these figures must be tempered by this fact. The definitions, based on various reasons for withdrawal, are as follows:

   A. 1971-72 to 1974-75 (Miller & Olson, 1975):

      1) Commitment to an institution
      2) Expulsion
      3) Poor health
      4) Regular employment
      5) Social or economic factors
      6) Marriage
      7) Dislike for school
      8) Passing compulsory school age
      9) Non-scholastic — too young
      10) Entered military service
      11) Other

B. 1975-76 (Olson, 1976): "any person who voluntarily withdraws from the pursuit of a formal education prior to (graduation from high school)."

1) Regular employment
2) Social or economic factors
3) Marriage
4) Dislike for school
5) Passing compulsory school age
6) Non-scholastic -- too young
7) Entered military service

The dropouts by ethnicities are the percentages of each ethnic group as defined above that dropped out.

9. Teacher Characteristics: A series of figures giving the percentages of teachers by sex, ethnicity, age, experience, and educational level.

Limitations: It is important to note some major limitations affecting the interpretation of the achievement profiles.

1. These statistics are descriptive, not inferential, in nature. They merely describe measured student achievement levels and related factors. Inferences concerning causal factors should not be considered valid without supportive experimental data.

2. Measured achievement levels are dependent upon a number of factors other than actual student achievement. For example, test administration procedures and the degree of appropriateness of test norms may contribute significantly to test results.

3. The norming groups from which the percentile scores were determined were changed in Grades 2-8 in 1974, when the District adopted the ITBS battery of tests. Accordingly, it stands as an unverified hypothesis that the norm groups before and after 1974 were equally representative of the national student population (and, hence, representative of each other) so that a student scoring at the p-th percentile on one test battery would have scored closely to the same percentile on the other test battery. In support of this hypothesis it can be said that the developers of the batteries used by the District claim to have taken pains to select norm groups which are well representative of the national student population.

4. Measured achievement levels are closely related to a number of sociological background factors. Thus, a full appreciation of trends in median achievement scores must include attention to

their influence on achievement scores. For this reason the pages of achievement charts at the end of this abstract are accompanied by charts of related teacher and student characteristics; achievement charts are incomplete without them.

Results: The following summary information includes descriptions of achievement and related trends by sub-district.

Northwest Subdistrict

1. In reading, Anglo median scores remained high in all grades although the grade 8 median fell to the 64th percentile in 1976. Across grades, actual growth over the years did not keep pace with that expected of very high scorers. Black median scores remained very low, declining further within grades 4 and 6. Across grades, actual growth trailed behind growth expected of low scorers. Mexican-American median scores remained very low, declining further within grades 6 and 12. Across grades, actual growth trailed behind growth expected of low scorers. In grade 2 this subdistrict contains the highest Anglo scorers and the lowest black scorers in the District; thus, in grades 4, 5, and 6 in future years the highest and lowest scorers will be housed together in the same school sites.

2. Anglo median scores in language remained high in all grades. Within grades there was some gain in grade 4 and some loss in grades 8, 9, and 12. Across grades, actual growth over the years did not keep pace with that expected of very high scorers. Minority median scores remained very low. Within grades there was some gain in grade 2 and loss in most other grades. Across grades, actual growth over the years did not keep pace with that expected of low scorers.

3. Anglo median scores in mathematics remained above norm in all grades. Within grades there was considerable loss in grades 2 and 8 and lesser losses in grades 9 and 12. Across grades, actual growth over the years did not keep pace with that expected of above-norm scorers. Minority median scores remained low in all grades. Within grades there was notable gain in grade 2 and stability in grade 9 at the 38th percentile. Across grades, actual growth over the years did not keep pace with that expected of low scorers.

4. In social studies Anglo median scores remained above norm in both grades while declining in grade 9 from percentile 62 to 58 and in grade 12 from percentile 68 to 58. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 nearly kept pace with expected growth. Black median scores remained below norm in both grades, improving from percentile 20 to 24 in grade 9 and from percentile 10 to 14 in grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 did not keep

pace with growth expected of low scorers. Mexican-American median scores remained below norm in both grades, improving in grade 9 from percentile 24 to 28 and falling in grade 12 from percentile 26 to 20. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 did not keep pace with growth expected of low scorers.

5. In science Anglo median scores remained above norm in both grades, declining in grade 9 from percentile 66 to 50 and in grade 12 from percentile 68 to 64. Black median scores remained below norm in both grades, steady in grade 9 at percentile 16 and in grade 12 at percentile 12. Mexican-American median scores remained below norm in both grades, falling from percentile 20 to 16 in grade 9 and from percentile 26 to 18 in grade 12. No statement can be made concerning actual growth from grade 9 in 1973 to grade 12 in 1976 because the science subtest was irrecoverably misscored by Region X in 1973.

6. The varying number of students tested each year from each ethnic group serves as an index of enrollment trends and as an influence on achievement trends. Anglo test-takers have declined heavily in all grades since 1971, from a high of 60% decline in grade 4 to a low of 25% decline in grade 12. Black test-takers have increased by 27% in grade 2 since 1972 and by 17% in grade 12 since 1971. In the remaining grades they have declined; the very large declines since 1975 in grades 4 and 6 are probably due to the new configuration of grades within schools. Mexican-American test-takers have declined in all grades except grades 8 and 12.

7. Since 1972 the number of elementary teachers has declined by 30%. The percentage of Anglo and black teachers has dropped, allowing for an increase of Mexican-American teachers. Also since 1972 the number of secondary teachers has declined by 24%. Over these years the ethnic composition of secondary teachers has remained constant. At both levels, elementary and secondary, this subdistrict claims the highest percentage of Mexican-American teachers and the largest number of elementary teachers in the District.

8. Since 1972 the percentage of elementary teachers who were less than 26 years old decreased from 21% to 11%. Similarly, the percentage of elementary teachers having less than six years of experience decreased from 44% to 36%. These changes were accompanied by a decrease in the percentage of elementary teachers holding only a bachelor's degree from 73% to 56% and by an increase in those holding a master's degree from 27% to 44%. This subdistrict currently claims the highest percentage of elementary teachers with higher degrees.

Also since 1972 the percentage of secondary teachers who were less than 26 years old decreased from 22% to 7%. Similarly, the percentage having less than six years of experience decreased from 49% to 33%. These changes were accompanied by a decrease in the percentage of secondary teachers holding only a bachelor's degree from 67% to 54% and by an increase in those holding a master's degree from 33% to 45%. This subdistrict currently claims the lowest percentage of least-experienced secondary teachers in the District.

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2        READING
-------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL  DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                                              ------------|-----
 1356   6 13 24 56       1    3    3    5    6    6   12   13   22   28

1973                                              -------------|------
 1210   7 14 22 57       2    3    3    5    7 [illegible]   11   11   20   32

1974                                      --------------------|-------
 1087  21  9 18 52       8    8    7    2    6    4    7   12   14   33

1975                                            -----------------|----
 1053  16  9 15 60       6    6    6    2    6    3    6   11   16   40

1976                                         --------------------|----
  680  16  9 15 60       7    6    5    2    5    3    5   12   16   38

-------------------------------------------------------------------------
                ETHI BLACK     GRADE  2        READING
-------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL  DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                      ------|------------
  644  55 26 12  7      26   21   14   11    9    5    5    4    4    1

1973                      ------|---------
  970  59 26 10  5      26   23   19   10    9    5    3    2    2    1

1974                      ----|---------
  852  65 22 10  3      28   23   19    6   11    4    3    3    1    1

1975                      -----|---------------
  860  56 22 13  8      20   23   18    6   11    3    6    6    4    2

1976                      -----|------------------
  817  51 23 15 11      21   19   16    6   12    5    6    6    5    3

LARGE CITY NORMS                  ------------|--------------
         25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                  --------|-----------
  587  39 33 19  9     15   14   16   14   13   10    6    6    4    2

1973                               -------|------------
  568  49 27 17  7     18   22   15   10   11    6    9    5    3    2

1974                         ----|----------------
  450  60 16 17  7     31   21   13    4    8    3    7    9    3    2

1975                           -------|------------------
  513  49 19 18 15     22   16   15    4   10    4    6   12    5    5

1976                           -----------|--------------
  495  43 21 22 15     20   13   14    3   13    6    8   10    6    5

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                             ----------------|--------------
 2645  26 21 20 33     10   10    9    9    8    7    9    9   13   15

1973                           ------------|------------------
 2790  34 21 17 29     13   14   11    8    8    6    8    7   10   15

1974                       -----------|-----------------------
 2426  43 15 15 26     19   16   12    4    8    4    6    8    7   16

1975                         -------------|----------------------
 2464  37 16 15 33     14   14   12    3    9    3    6   10    9   19

1976                         ----------------|------------------
 2240  35 17 17 31     15   13   11    4    9    5    6   10   10   18

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETHI ANGLO     GRADE  4          READING
-------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40   50    60    70    80    90   100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                                ------------|--------
 1898   10 17 28 44       4     4     5     7     8   10    11    13    16    22

1972                                                 -----------|---------
 1642   11 17 30 42       4     4     6     7     7   11    11    14    17    19

1973                                               ------------|---------
 1455   13 16 27 44       6     4     6     6     7   10    11    13    18    20

1974                                               -------------|-----------
 1195   14 15 22 50       5     5     5     8     5    6     9    16    15    26

1975                                                --------------|--------
  997   13 13 22 51       5     6     5     6     5    7    10    16    14    27

1976                                          ---------------|----------
  758   19 12 21 47       8     6     6     6     4    5    11    15    14    23

-------------------------------------------------------------------------
                 ETHI BLACK     GRADE  4          READING
-------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40   50    60    70    80    90   100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                        -----|-------
  969   66 25  7  2     30    23    21    12     5     3     3     1     1     1

1972                          -----|-------
 1199   61 28  8  3     25    23    21    14     6     5     2     2     2     0

1973                        ----|-------
 1179   67 26  6  1     35    22    18    12     5     3     2     1     0     0

1974                     ------|---------
 1139   69 19  9  3     34    23    13    13     6     5     3     2     1     1

1975                       -------|---------
 1040   64 20 11  5     29    20    15    14     6     6     4     3     1     1

1976                       ----|-----------
  694   66 20 10  4     31    23    13    13     5     4     4     3     1     1

LARGE CITY NORMS                    ------------|------------
        25 25 25 25     10    10    10    10    10    10    10    10    10    10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20    30   40    50   60    70    80   90   100
-------------------------------------------------------------------------
```

```
                          NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI MEXAM     GRADE  4        READING
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                       --------|---------
 652  48 33 15  5      22   18   18   13   10    9    4    3    3    1

1972                       -------|---------
 589  50 32 13  5      21   17   20   15    9    6    5    4    2    2

1973                       -----|---------
 586  55 29 13  4      25   20   17   15    7    7    5    3    1    1

1974                      -------|----------
 528  57 25 13  5      25   21   12   15    9    7    4    3    2    2

1975                   ------|--------------
 483  62 19 13  5      32   20   11   11    7    6    5    4    2    2

1976                    --------|----------
 521  60 24 12  5      29   18   15   15    7    6    3    4    1    2
-------------------------------------------------------------------------
                ETHI TOTAL     GRADE  4        READING
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                          -------------|-----------------
3592  32 22 20 25      14   12   12    9    7    8    8    8    9   12

1972                           ---------|------------------
3480  35 24 19 22      14   13   14   11    7    8    7    8    9    9

1973                        ----------|-------------------
3259  40 22 17 21      20   14   12   10    6    7    7    7    8    9

1974                        -----------|------------------
2890  43 19 15 23      20   15    9   11    6    6    6    8    7   11

1975                        -----------|------------------
2579  43 18 16 23      20   14   10   10    6    6    7    8    7   12

1976                      ----------|-------------------
2023  46 18 15 21      22   15   11   11    5    5    6    8    6   10

LARGE CITY NORMS                  ------------|-------------
      25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                           -------------|------
 1862  10 14 22 50      4    4    4    5    7    8    9   10   25   24

1972                                          ------------|-------
 1826  10 16 25 49      4    4    5    6    7    8   11   14   21   21

1973                                          -------------|-------
 1533  10 16 24 50      4    3    4    6    8    7   11   13   19   23

1974                                      -------------|----------
 1409  14 17 26 43      6    5    5    9    6    6   13   13   15   22

1975                                        ------------|---------
 1213  14 16 26 44      8    4    5    8    5    6   13   14   17   20

1976                                      ---------------|---------
  840  15 14 26 45      8    6    4    7    5    7   11   15   14   24

------------------------------------------------------------------------
                ETHI BLACK     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  ---|---------
  934  74 16  6  4     55   14    8    7    5    3    2    2    2    1

1972                   ----|--------
 1160  72 19  7  2     46   21   11    8    6    4    2    1    1    0

1973                   ----|--------
 1197  71 19  7  4     45   21   11    8    6    3    3    2    2    1

1974                  --|--------
 1015  78 16  5  1     58   16    9    7    4    2    2    1    0    0

1975                  ---|-------
 1127  78 15  6  1     56   16   10    7    3    3    3    1    0    0

19[illegible]                  --|--------
  855  76 15  7  1     58   13    9    8    3    3    3    1    1    0

LARGE CITY NORMS                 ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                        NORTHWEST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                      ETH: MEXAM     GRADE  6        READING
--------------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                          ------|------------
  610  55 26 14  5      30   19   13   10    9    7    4    4    3    1

1972                          ------|----------
  553  59 23 13  5      31   20   13   12    7    7    4    3    3    1

1973                         -------|-----------
  587  56 25 13  6      31   18   13   12    7    7    5    3    4    1

1974                        ------|------------
  578  62 20 13  4      45   13   10    9    6    6    6    3    2    2

1975                        ------|---------
  552  65 23 11  1      45   15   11   10    7    5    5    3    0    0

1976                        ------|------------
  547  60 20 12  8      43   14    9   11    5    3    7    5    3    2

--------------------------------------------------------------------------
                      ETH: TOTAL     GRADE  6        READING
--------------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            ------------------|-----------------
 3486  36 17 16 31      23    9    7    7    7    7    6    7   14   13

1972                            ---------------|-----------------
 3610  36 18 18 26      22   12    8    8    7    7    7    8   11   11

1973                            -------------|-------------------
 3365  40 19 16 25      24   12    8    7    7    6    7    7   10   11

1974                         -------------|-------------------
 3048  45 17 17 21      31   10    7    8    5    5    8    7    7   11

1975                         ----------|---------------------
 2944  49 17 16 19      34   11    8    8    5    5    7    7    7    9

1976                         ----------|---------------------
 2299  49 16 16 19      35   10    7    8    4    5    7    7    6   10

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                     NORTHWEST  SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                        ETH: ANGLO      GRADE  8        READING
---------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                           --------------|--------
 1936  12 13 25 50      6    4    5    5    5    8    12   12   17   27

1972                                            ------------|--------
 1807   9 14 28 49      4    4    4    5    6    8    15   13   17   25

1973                                          ------------|----------
 1523  11 16 27 46      5    4    5    7    6    9    12   13   17   21

1974                                         -------------|---------
 1503  11 15 30 44      5    5    5    7    5    12   11   14   17   19

1975                                          ------------|----------
 1294  11 15 27 47      4    5    5    7    5    10   11   13   19   21

1976                                     -------------|-----------
 1114  15 18 27 39      7    6    6    8    6    11   10   11   16   19

---------------------------------------------------------------------------
                        ETH: BLACK      GRADE  8        READING
---------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ---|--------
  823  74 15  8  3      49   21   8    7    4    3    4    3    1    0

1972                    --|--------
  865  75 17  6  2      55   17   10   7    3    3    2    1    1    1

1973                    ---|-------
  915  77 15  6  2      53   18   11   6    4    3    2    2    1    0

1974                    ----|-------
  770  74 19  6  1      47   23   11   9    2    4    2    0    1    0

1975                    ---|-------
  799  77 17  5  1      49   22   13   7    2    4    1    1    1    0

1976                    ---|-----
  739  79 14  6  1      50   24   11   5    3    4    1    1    0    1

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM      GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     -----|-----------
  502  59 24 11  6     31   22   15   10    5    5    5    3    2    2

1972                    ------|---------
  481  65 21  9  4     40   19   13   10    5    4    4    3    2    1

1973                    ------|-----------
  509  62 23 12  3     35   21   14    8    7    6    5    3    0    0

1974                     ----|----------
  441  67 20  9  4     37   25   11    8    6    5    3    2    2    1

1975                    -----|-----------
  456  64 23  9  4     37   20   15   10    6    5    2    3    1    1

1976                    -----|-----------
  521  64 21 10  5     39   21   10    9    6    7    3    2    3    1

------------------------------------------------------------------------
                ETHI TOTAL      GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        -------------------|-----------------
 3323  35 15 19 31     21   11    7    6    5    6    9    8   11   16

1972                       -------------------|----------------
 3210  36 16 19 29     23   10    7    6    5    6   10    8   10   14

1973                      ---------------|-------------------
 3007  40 17 18 25     25   11    9    7    6    7    8    8    9   11

1974                       ---------------|-----------------
 2759  38 17 20 25     22   14    8    8    4    9    7    8   10   11

1975                      -------------|--------------------
 2601  41 17 17 25     24   13    9    8    4    7    6    7   10   11

1976                      ----------|---------------------
 2425  45 17 17 20     27   15    8    7    5    8    6    6    8    9

LARGE CITY NORMS                  -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                      NORTHWEST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                  ETH: ANGLO     GRADE  9        READING
------------------------------------------------------------------------
       QUARTILE                       PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                                       -------------|---------
 1995   12 18 28 42     3    6    5    7   10    7   13   13   21   16

1972                                        -------------|-------
 1818   11 16 28 45     4    5    4    5    9    7   13   14   22   17

1973                                        ------------|-------
 1696   10 18 31 41     2    5    5    6   10    7   15   15   19   15

1974                                       -------------|-------
 1425   11 20 29 40     2    5    6    7   11    7   13   14   19   16

1975                                       -------------|-------
 1470   12 18 27 43     2    6    6    6   11    6   14   14   22   14

1976                                    ---------------|-------
 1256   14 21 29 37     2    7    7    7   12    8   12   14   19   13

------------------------------------------------------------------------
                  ETH: BLACK     GRADE  9        READING
------------------------------------------------------------------------
       QUARTILE                       PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ----|--------
  781   69 24  5  1    26   32   17   12    8    2    2    1    1    0

1972                     -----|-------
  824   68 23  7  1    27   28   18   11    8    2    3    2    1    0

1973                      ----|-------
  751   67 25  6  2    21   33   19   12    8    2    3    2    1    0

1974                      ----|-------
  757   66 26  6  2    20   33   18   11   10    3    3    1    1    1

1975                      ----|-------
  754   66 27  6  1    18   34   21   12    8    3    2    1    0    0

1976                      ----|----
  741   70 24  5  1    24   35   16   13    6    2    2    1    1    0

LARGE CITY NORMS                  ------------|-------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

NORTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
----------------------------------------------------------------------------
                            ETHI MEXAM     GRADE  9          READING
----------------------------------------------------------------------------
                 QUARTILE                         PERCENTILES
FALL       DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N         1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           -----|---------
  414     57 32  8  3     21   26   17   13   13    3    3    2    2    0

1972                          -----|----------
  465     64 22 10  3     25   28   15    8   10    4    5    2    2    1

1973                           ----|----------
  352     60 27  9  4     23   31   11   13    9    3    4    3    2    1

1974                           -----|---------
  436     59 31  8  2     21   28   17   13   12    3    4    2    1    0

1975                            ----|---------
  411     56 33  9  3     20   26   18   13   12    3    4    2    1    0

1976                           ----|-------
  355     61 28  8  2     22   29   13   14   11    3    3    4    1    0

----------------------------------------------------------------------------
                            ETHI TOTAL     GRADE  9          READING
----------------------------------------------------------------------------
                 QUARTILE                         PERCENTILES
FALL       DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N         1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               -------------|-----------------
  3247     32 22 20 27    11   15    9    9   10    6    9    8   13   10

1972                               ------------|------------------
  3167     35 19 19 27    13   15   10    7    9    5    9    9   13   10

1973                               -------------|----------------
  2845     32 21 22 26    10   16   10    8    9    5   10   10   12    9

1974                               ------------|---------------
  2680     35 24 19 23    10   17   11    9   11    5    9    8   11    9

1975                               ------------|---------------
  2687     34 23 18 24     9   17   13    8   10    5    9    9   12    8

1976                             ----------|------------------
  2412     39 23 18 20    12   19   11   10   10    5    8    8   10    7

LARGE CITY NORMS                     ------------|-------------
           25 25 25 25    10   10   10   10   10   10   10   10   10   10

                         +....+....+....+....+....+....+....+....+....+....+
                         0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO      GRADE 12        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                             ---------|---------
 1735    5 14 35 47      1    2    3    5    7   12   14   17   14   24

1972                                             --------|---------
 1755    7 14 36 43      2    3    3    6    7   13   14   16   14   22

1973                                        ----------|-----------
 1245   10 21 31 38      3    4    5    7   11   11   14    9   16   18

1974                                             ---------|---------
 1419    6 14 34 46      1    3    3    6    8   12   13   17   13   24

1975                                           ----------|---------
 1318    9 16 31 44      3    3    4    6    8   12   13   15   13   22

1976                                        -----------|---------
 1302    9 19 36 37      2    4    5    8    9   13   15   15   12   18

-------------------------------------------------------------------------
                ETH: BLACK      GRADE 12        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ---|-------
  384   77 15  7  1     47   23   11    5    5    5    2    2    0    0

1972                   ----|------
  411   77 15  8  1     43   28    8    7    5    4    3    1    0    0

1973                  ---|------
  332   80 13  5  2     53   18   12    7    4    2    2    0    1    1

1974                    ---|---------
  428   72 20  6  2     40   24   12   11    4    3    3    2    0    1

1975                   ----|------
  455   76 14  9  1     43   27    8    8    4    5    4    1    0    0

1976                   --|-------
  451   79 13  5  3     56   18    8    5    6    3    2    0    2    0

LARGE CITY NORMS                  ------------|--------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                        ETHI MEXAM     GRADE 12        READING
--------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                       -----|------------
  137    55 22 19  4    23   26   10   10    9   12    4    4    1    1

1972                     -------|-----------
  143    55 28 15  2    34   17   10   13   10    8    6    1    1    1

1973                   ------|--------
  164    68 22  5  5    40   19   15    7    9    2    2    2    1    2

1974                     ------|-----------
  190    64 17 15  4    32   23   12    9    5    8    7    1    3    1

1975                    ------|-------------
  206    65 15 14  6    34   26    9    5    5    9    3    3    2    2

1976                   ----|------------
  206    71 16 11  2    43   22    8    6    8    7    3    1    1    1

--------------------------------------------------------------------------
                        ETHI TOTAL     GRADE 12        READING
--------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                                   ---------------|----------
 2314    21 14 29 36    11    7    5    6    7   11   11   14   11   18

1972                                 ---------------|-----------
 2372    23 15 29 33    11    9    5    6    7   11   12   13   10   17

1973                            ---------------|---------------
 1796    30 19 23 28    17    8    8    7    9    9   10    7   12   13

1974                             ------------------|-------------
 2081    25 16 26 33    12    9    6    7    7   10   10   12   10   17

1975                           ------------------|-------------
 2048    30 15 25 30    15   11    6    6    7   10   10   10    9   15

1976                          ------------------|------------
 2004    31 17 26 25    18    9    6    7    8   10   11   10    9   12

LARGE CITY NORMS                  -------------|-------------
         25 25 25 25    10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                    NORTHWEST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: ANGLO     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                          --------------|--------
 1361  11 14 21 54      3    5    4    6    7    7    9   13   17   29

1973                                          --------------|--------
 1210  12 14 20 54      5    5    4    5    7    7    9   11   16   31

1974                                   --------------|------------
 1087  23 17 16 44      9    4   11    6   11    6    5   10   18   20

1975                                     ------------------|--------
 1045  19 15 15 52      7    3    8    5   10    5    5    7   22   27

1976                                     ------------------|--------
  870  17 14 16 53      7    2    8    6    9    3    5   13   22   25

------------------------------------------------------------------------
                ETH: BLACK     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                   ----|---------
  643  72 17  7  4     47   19    9    8    5    3    3    3    1    1

1973                   -----|------
  970  73 19  5  3     44   22   12    8    6    2    2    2    1    1

1974                     ------|--------
  852  69 19  7  4     35    9   25    8   12    3    3    2    2    2

1975                      -----|-----------
  861  66 19  7  8     33   10   22    8   11    3    2    3    5    2

1976                      -----|-----------
  807  64 18  9 10     32   11   21    6   12    4    3    4    4    3

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                    NORTHWEST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                    ETHI MEXAM     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
       QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                    ------|-----------
  565  63 19 12  6      35   22   11    8    6    4    5    4    3    1

1973                     -----|-----------
  568  61 23 10  7      33   22   13   10    7    5    4    4    3    2

1974                      -------|---------
  450  60 25  8  6      26   11   23   12   14    5    1    3    4    1

1975                        -----|------------
  498  52 24 12 11      21    8   23   10   14    6    4    5    6    3

1976                        -----|------------
  476  53 28  8 11      25   11   18   11   17    4    3    3    5    4

-------------------------------------------------------------------------
                    ETHI TOTAL     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
       QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                        ---------------|-------------------
 2626  38 16 15 31      21   12    7    7    6    5    7    8   10   16

1973                       -----------|----------------------
 2790  43 18 13 27      24   14    9    7    7    5    6    6    8   14

1974                        -----------|------------------
 2426  46 19 11 23      22    7   18    8   12    5    4    6    9   10

1975                        -------------|---------------------
 2442  42 18 12 28      19    7   16    7   11    5    4    5   12   13

1976                        -------------|------------------
 2201  42 19 11 28      20    7   15    7   12    4    4    7   12   12

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

NORTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-----------------------------------------------------------------------
                   ETH: ANGLO     GRADE  4        LANGUAGE
-----------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                  ------------|----------
 1898 17 23 28 32      6    7    7   11    9   12   12   13   11   13

1972                                  ------------|---------
 1642 15 25 30 31      5    6    8   11   10   11   15   12   12   11

1973                                --------------|----------
 1455 19 22 27 31      9    7    7    9    9   10   13   12   12   12

1974                                    ----------------|---------
 1179 16 14 24 46      8    5    5    7    5    9   10   12   18   20

1975                                     -------------|---------
  992 15 15 26 44      6    5    6    7    6   10   12   13   17   18

1976                                  ---------------|----------
  751 21 14 21 44     10    7    5    6    7    8    9   12   16   20

-----------------------------------------------------------------------
                   ETH: BLACK     GRADE  4        LANGUAGE
-----------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ---|--------
  969 69 24  5  1     34   27   16   12    4    3    2    1    1    0

1972                   -----|------
 1199 69 23  6  2     31   30   16   11    5    3    3    1    1    0

1973                   ---|--------
 1179 70 24  5  1     35   28   14   12    5    3    2    1    0    0

1974                 ---|----------
 1113 74 14  8  4     48   18   10    8    4    4    3    3    1    1

1975                 ---|-----------
 1016 70 15 11  4     45   17   10    9    5    5    4    3    2    1

1976                 ---|------------
  681 72 15 10  3     42   21   11    7    6    5    3    2    2    0

LARGE CITY NORMS                ------------|------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  4        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -------|--------
  652  52 32 12  4     23   21   16   17    7    7    4    2    2    1

1972                      ------|---------
  589  57 29 12  3     23   24   16   12   10    5    5    2    1    1

1973                     ------|--------
  586  61 24 10  5     29   23   15   13    6    5    4    3    2    1

1974                    -------|-------------
  526  59 18 16  7     31   18   12    9    6    9    4    5    4    1

1975                    -----|-------------
  475  61 21 10  8     32   19   12   11    7    5    4    5    4    1

1976                   -----|---------
  517  69 15 11  5     39   20   13    7    5    6    4    3    2    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  4        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------------|---------------
 3592  37 25 19 18     17   15   11   12    7    8    8    8    6    7

1972                       ----------|----------------
 3480  41 24 18 16     17   17   12   11    8    7    9    6    6    5

1973                     ----------|----------------
 3259  45 23 16 15     22   18   11   11    7    7    7    6    6    6

1974                    -------------|------------------
 2847  47 15 16 22     28   13    8    8    5    7    6    7    9    9

1975                    -------------|-----------------
 2541  46 16 17 21     27   12    9    9    5    7    7    8    8    8

1976                   ---------|---------------------
 1998  51 15 14 20     29   15    9    7    6    6    6    6    7    8

LARGE CITY NORMS                 ------------|-------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                          NORTHWEST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

   --------------------------------------------------------------------------
                     ETH: ANGLO      GRADE  6         LANGUAGE
   --------------------------------------------------------------------------
           QUARTILE                           PERCENTILES
   FALL   DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
    N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

   1971                                         -------------|---------
    1862  13 16 26 45      6     5     4     6     8    12     8    11    17    23

   1972                                        -------------|---------
    1826  14 18 25 44      5     7     5     6     9     8    10    14    16    20

   1973                                       -------------|----------
    1533  15 18 23 43      5     7     6     6     9     8    10    11    16    21

   1974                                       -------------|--------
    1386  16 18 30 37      6     6     6     6     9    10    11    16    17    12

   1975                                       -------------|---------
    1199  17 16 29 39      8     6     6     4     9     8    12    16    17    15

   1976                                        -------------|---------
     832  16 16 27 42      9     4     5     3    10     8    11    14    15    20

   --------------------------------------------------------------------------
                     ETH: BLACK      GRADE  6         LANGUAGE
   --------------------------------------------------------------------------
           QUARTILE                           PERCENTILES
   FALL   DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
    N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

   1971                 --|------------
     934  74 15  7  5   58    12     7     7     6     3     2     2     2     1

   1972                  ---|---------
    1160  72 17  8  3   48    21     7     8     6     4     3     3     1     0

   1973                  ---|---------
    1197  71 17  8  3   48    18    10     7     6     4     3     3     1     1

   1974                 --|-----------
    1003  78 15  7  1   58    15     9     4     7     3     2     1     0     0

   1975                 -|------------
    1076  77 15  7  1   60    12     8     4     7     4     3     1     1     0

   1976                 --|-----------
     853  77 14  7  2   59    13    10     5     5     2     3     2     1     0

   LARGE CITY NORMS                  -------------|-------------
          25 25 25 25   10    10    10    10    10    10    10    10    10    10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10    20    30    40    50    60    70    80    90   100
   --------------------------------------------------------------------------
```

```
                                  NORTHWEST  SUBDISTRICT
                        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------
                        ETH: MEXAM       GRADE  6        LANGUAGE
-----------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION      0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                         -------|-------------
  610    56 23 15  6        33   18   11    9    8    7    6    3    4    1

1972                          ------|-------------
  553    57 23 12  8        30   20   13    8    9    6    5    3    4    2

1973                         -------|-------------
  587    56 23 13  8        35   17    7    9   12    7    5    3    4    1

1974                      --------|--------------
  561    58 21 17  4        40   14   10    5    9    8    6    5    2    1

1975                       ------|------------
  541    63 21 13  3        41   16   13    6    9    6    6    3    1    0

1976                      --------|--------------
  541    59 21 14  7        39   13   10    7   10    5    6    4    3    2

-----------------------------------------------------------------------------
                        ETH: TOTAL       GRADE  6        LANGUAGE
-----------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION      0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                           -----------------|-----------------
 3486    38 17 19 27        25    9    6    7    7    9    6    7   11   13

1972                           --------------|------------------
 3610    40 18 18 25        23   13    7    7    8    7    7    8   10   11

1973                           -------------|------------------
 3365    43 19 16 23        26   13    8    7    8    6    7    7    9   10

1974                        ----------------|----------------
 2995    45 18 19 18        30   11    8    5    8    7    7    9    9    6

1975                       ------------|-------------------
 2868    48 16 17 18        34   10    8    4    8    6    7    8    8    6

1976                       ------------|--------------------
 2280    49 16 16 18        35   10    8    5    8    5    7    7    7    8

LARGE CITY NORMS                      ------------|--------------
         25 25 25 25        10   10   10   10   10   10   10   10   10   10

                          +....+....+....+....+....+....+....+....+....+....+
                          0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------------
```

```
                        NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                     ETHI ANGLO      GRADE  8        LANGUAGE
----------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                                                -------------|--------
 1936   13 16 23 47       6     5     6     5     8     8    11    13    16    24

1972                                               ------------|----------
 1807   13 18 27 42       5     5     6     6     9     9    12    13    14    21

1973                                           --------------|----------
 1523   16 19 26 39       7     6     8     7     8     9    11    13    14    18

1974                                             -------------|--------
 1495   14 20 29 37       6     6     5     7    10    11    11    14    16    14

1975                                             -------------|---------
 1284   15 19 29 37       7     6     6     8     8    12    12    13    15    15

1976                                          -------------|-----------
 1099   17 22 26 35       9     6     5     9    10    11    10    13    12    15

----------------------------------------------------------------------------
                     ETHI BLACK      GRADE  8        LANGUAGE
----------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                     -----|----------
  823   70 18  9  4      41    21    12     7     7     4     3     3     2     1

1972                     ---|---------
  865   74 16  6  3      50    17    11     6     6     3     2     2     2     0

1973                     ---|--------
  915   75 16  5  3      49    20    11     6     5     3     2     3     1     1

1974                    ---|--------
  742   78 15  6  1      58    13     9     7     5     4     2     1     1     0

1975                    -|--------
  784   80 14  4  1      65    12     7     7     4     3     1     1     1     0

1976                    --|-------
  720   79 14  5  2      64    12     6     7     5     3     1     1     1     1

LARGE CITY NORMS                       -----------|-----------
        25 25 25 25      10    10    10    10    10    10    10    10    10    10

                       +....+....+....+....+....+....+....+....+....+....+....+
                       0    10    20    30    40    50    60    70    80    90   100
----------------------------------------------------------------------------
```

```
                          NORTHWEST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                    ETHI MEXAM      GRADE  8        LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-------------
   502  59 24 12  6    27   23   14    9    9    6    4    3    2    2

1972                     -------|----------
   481  62 21 10  7    34   19   15    9    7    6    2    3    2    2

1973                      ------|-------------
   509  60 24 10  6    31   20   15    9    9    4    5    4    2    1

1974                    -----|---------------
   427  63 19 15  4    44   14    8    9    6    8    4    3    3    0

1975                    ----|---------------
   443  65 20 12  3    47   13    8    9    8    7    5    2    2    0

1976                    ----|-----------------
   507  64 21 10  5    49   10    7    8   11    5    3    2    3    2

-------------------------------------------------------------------------
                    ETHI TOTAL      GRADE  8        LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ------------------|-------------------
  3323  34 18 18 30    18   12    8    6    8    6    8    9   10   15

1972                         -----------------|-----------------
  3210  37 18 19 26    22   10    9    6    8    7    8    8    9   12

1973                       -------------|--------------------
  3007  42 19 17 22    24   13   10    7    8    6    7    8    8   10

1974                       ----------------|------------------
  2710  40 18 20 22    27    9    7    7    8    9    7    8    9    8

1975                    ----------------|--------------------
  2564  44 18 18 20    32    9    6    8    7    8    7    7    8    8

1976                   ---------------|--------------------
  2377  46 19 16 18    34    9    6    8    9    8    6    7    6    8

LARGE CITY NORMS                   --------------|--------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

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NORTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI ANGLO     GRADE  9        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     -----------------|--------
 1995  14 17 23 47      6    4    5   10    5    9    8   14   21   17

1972                                      ----------------|-------
 1818  13 16 24 47      5    4    6   10    4   10    8   15   21   17

1973                                     -----------------|-------
 1691  13 18 23 46      5    5    6   10    5    9    8   15   21   16

1974                                    ----------------|--------
 1433  16 16 24 43      6    6    7   10    4    9    9   15   20   14

1975                                     ----------------|--------
 1475  14 17 25 44      6    5    6    9    5    9    9   15   20   15

1976                                  ----------------|----------
 1250  18 17 26 39      6    6    9   10    4   11    9   14   17   14

------------------------------------------------------------------------
                ETHI BLACK     GRADE  9        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     -----|---------
  781  63 23 10  4     32   19   17   14    4    6    2    2    3    1

1972                     ------|----------
  824  58 25 11  6     30   18   16   15    4    5    4    4    3    1

1973                     -----|---------
  747  64 22 10  4     29   22   17   14    4    5    4    3    3    0

1974                    -----|---------
  761  69 19  9  4     37   21   15   11    4    5    2    3    2    1

1975                     -----|--------
  746  66 25  7  2     33   20   20   13    4    4    2    2    1    0

1976                     -----|--------
  736  67 22  8  3     35   19   17   15    3    4    3    2    2    0

LARGE CITY NORMS                  ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETH: MEXAM     GRADE  9        LANGUAGE
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     -------|----------
 414  51 26 14  8     25   18   13   16    5    7    4    7    4    1

1972                     ------|------------
 465  55 24 15  6     33   12   15   14    5    8    3    6    2    1

1973                     -------|---------
 345  56 23 13  8     27   15   20   13    4    7    4    5    3    1

1974                     -----|----------
 415  61 21 13  6     34   16   15   13    3    7    3    5    3    1

1975                     ------|----------
 412  60 22 12  6     27   20   17   14    4    6    5    3    3    1

1976                     ------|---------
 346  57 25 12  5     30   16   18   15    4    6    3    5    3    1

-------------------------------------------------------------------------
                  ETH: TOTAL     GRADE  9        LANGUAGE
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                           --------------|----------------
3247  30 20 19 31     15   10    9   12    5    9    6   10   14   11

1972                           --------------|----------------
3167  32 19 19 30     16    9   10   12    4    8    6   11   13   10

1973                           --------------|----------------
2827  32 20 18 30     14   11   11   11    5    7    6   11   14   10

1974                         ----------|-------------------
2672  39 18 18 26     19   12   11   10    4    8    6   10   12    8

1975                          -----------|-----------------
2688  36 20 18 26     17   11   12   11    5    7    6   10   12    9

1976                          ---------|--------------------
2394  39 20 18 22     19   12   13   12    4    8    6    9   10    7

LARGE CITY NORMS                 ------------|-------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    NORTHWEST  SUBDISTRICT
         INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                     ETHI ANGLO     GRADE 12        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                                           -----------|----------
 1735  11 20 28 42     3    4    5    8    9   10   13   12   15   20

1972                                           -----------|----------
 1755  10 19 30 42     3    4    5    9    8   11   14   13   15   19

1973                                     ------------|------------
 1234  15 26 26 32     6    6    9   10   10   11   10   12   11   14

1974                                          ------------|----------
 1419  11 20 26 42     2    5    6    8    9    9   13   11   17   18

1975                                        --------------|----------
 1317  13 19 27 42     4    6    6    8    8   10   13   11   15   19

1976                                        ----------|-----------
 1296  13 23 29 34     4    6    6    9   11   12   12   11   13   15

-----------------------------------------------------------------------
                     ETHI BLACK     GRADE 12        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                 ----|---------
  384  72 16  9  3    45   22    9    8    6    4    4    2    1    1

1972                  -----|----------
  411  64 22  9  5    36   22   12   12    5    5    3    2    2    2

1973                 ----|-----------
  329  67 22  7  3    47   16   11    9    7    3    3    3    1    1

1974                  ---|------------
  422  69 16 10  4    41   23    9    8    5    5    4    2    2    1

1975                 ----|-------------
  455  69 18 10  3    44   22    8    8    6    4    4    3    1    1

1976                 ---|---------
  442  74 15  9  2    48   21    8    6    5    4    3    2    2    0

LARGE CITY NORMS                ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                   ETH: MEXAM      GRADE 12        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           -------|--------------
  137  49 25 18  8     23   20   11   11    9    5   11    2    6    2

1972                        --------|-------------
  143  55 22 16  7     31   17   10   10    8    8    7    3    3    1

1973                         --------|--------
  160  51 30 11  8     30   18   15   11    8    6    3    5    4    1

1974                         -------|------------
  176  54 23 14  9     25   23   11   11    7    6    7    3    6    1

1975                        -----|--------------
  206  59 19 15  6     33   20   10   10    5    6    8    4    1    2

1976                        -----|--------------
  200  57 24 15  5     31   22    8   12    8    8    6    2    2    2

-----------------------------------------------------------------------
                   ETH: TOTAL      GRADE 12        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                    ---------------|------------
 2314  24 20 24 33     12    8    6    9    9    8   11    9   12   16

1972                                    ---------------|------------
 2372  22 20 25 33     11    8    6    9    8   10   12   10   12   15

1973                                --------------|--------------
 1779  29 26 21 24     16    9   10   10    9    9    8    9    8   11

1974                                 ----------------|-------------
 2061  27 20 22 31     12   10    8    9    8    8   10    9   13   13

1975                            ------------------|-------------
 2045  31 19 22 28     16   11    7    8    8    8   11    8   10   13

1976                            ----------------|-------------
 1983  32 22 23 24     16   12    7    9    9   10   10    8    9   10

LARGE CITY NORMS                       ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------
                ETHI ANGLO      GRADE  2      MATHEMATICS
-----------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                                            -------------|--------
 1361  11 14 28 46       3     5     6     6     5     9    12    14    15    24

1973                                          ------------|-----------
 1209  12 18 28 43       4     4     7     7     8    10    12    12    13    23

1974                                        -----------|---------
 1087  12 21 34 33       6     5     6     7    10    11    14    13    15    15

1975                                           ---------|---------
 1051  12 19 33 37       5     6     5     6     9    10    13    13    20    14

1976                                           ---------|---------
  875   9 19 37 35       4     3     5     8     8    12    16    13    15    15

-----------------------------------------------------------------------------
                ETHI BLACK      GRADE  2      MATHEMATICS
-----------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                    -----|----------
  653  65 21 11  3      36    18    16     9     7     6     4     3     1     1

1973                    ------|----------
  970  63 20 14  4      35    19    14     9     6     8     5     2     1     1

1974                     ---------|-------
  852  49 32 17  2      35    11    15    12     8     8     7     2     1     0

1975                     ---------|----------
  857  47 30 18  5      31    13    11    12    10     8     6     4     3     1

1976                     ---------|----------
  807  42 34 18  6      25    14    12    14    11     8     7     4     3     2

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10    10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10    20    30    40    50    60    70    80    90   100
-----------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  2      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                       ---------|-----------
  580  45 27 21  7     20   14   16   11   11   12    7    4    3    2

1973                        -------|------------
  568  45 26 21  7     20   14   19   10    9    9    9    7    3    1

1974                     ---------|----------
  450  44 36 17  3     28   12   14   14   11    8    6    3    2    1

1975                        -----------|----------
  505  37 33 23  7     20   14   12   10   15   10   10    4    5    2

1976                        -----------|----------
  493  34 35 25  6     21   10   13   14   12   13    9    3    3    2

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  2      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          ---------------|--------------
 2654  32 19 22 27     15   10   11    8    7    9    9    9    9   13

1973                         -------------|---------------
 2789  36 20 22 22     18   11   12    8    7    9    9    8    7   11

1974                         ------------|-------------
 2426  31 28 25 16     20    9   10   10   10    9   10    7    8    7

1975                         ---------------|--------------
 2450  29 26 25 19     17   10    8    9   11    9   10    8   11    7

1976                           -------------|---------
 2223  26 29 28 17     16    9   10   12   10   11   11    8    8    7

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO     GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                    -----------|-----------
 1898   17 24 28 31      6    6    8   11   10   10   13   13   12   12

1972                                  -------------|-----------
 1642   17 25 26 31      5    7   10   10   11    9   10   13   13   11

1973                                 -------------|-----------
 1455   19 25 26 30      6    7   10   11   10    8   12   12   12   12

1974                                  ---------------|------------
 1180   21 18 26 35      8    8    6   10    7    7   12    8   18   16

1975                                    ---------------|----------
  997   18 19 26 36      7    7    6   11    7    6   14    8   19   15

1976                             ------------------|--------------
  757   26 17 24 33     14    8    5   11    5    8   11    7   17   15

-------------------------------------------------------------------------
                ETHI BLACK     GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ---|------
  969   78 18  3  1     37   27   20    8    3    2    2    1    0    0

1972                      ----|-----
 1199   74 21  4  1     30   30   22    9    4    1    2    1    0    0

1973                      ---|-----
 1179   76 20  4  1     35   27   19   11    4    3    1    0    0    0

1974                   --|-----
 1089   83 12  4  1     63   16    5    7    4    2    2    1    1    0

1975                   --|---------
 1014   77 14  8  2     58   15    6    9    3    4    3    1    1    0

1976                   --|---------
  686   78 12  7  2     58   16    5    8    4    4    2    2    1    0

LARGE CITY NORMS                   -----------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                 NORTHWEST  SUBDISTRICT
         INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------
                 ETH: MEXAM     GRADE  4      MATHEMATICS
----------------------------------------------------------------------
       QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     -----|---------
  652  59 28  9  4     25   20   19   13    9    4    3    4    2    1

1972                      -----|--------
  589  59 27 10  4     25   21   18   13    9    4    4    4    1    1

1973                      ------|---------
  586  51 32 13  4     21   17   20   15   10    5    6    4    2    1

1974                  ------|------------
  521  62 22 13  3     39   16    8   16    4    5    5    3    2    1

1975                  ------|------------
  482  62 22 13  3     38   18    7   16    5    6    5    2    3    1

1976                  ---|-----------
  521  73 15  9  3     50   17    8    9    4    3    4    2    2    1

----------------------------------------------------------------------
                 ETH: TOTAL     GRADE  4      MATHEMATICS
----------------------------------------------------------------------
       QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                       ---------|----------------
 3592  41 23 18 18     18   14   14   11    8    6    8    8    7    7

1972                       --------|--------------
 3480  44 24 16 16     17   17   15   10    8    6    6    7    6    6

1973                      --------|---------------
 3259  45 24 16 14     19   16   15   11    8    6    7    6    6    6

1974                  ----------|------------------
 2819  53 16 15 16     35   13    6   10    5    5    7    4    8    7

1975                   ---------|--------------------
 2552  50 18 16 16     33   12    6   11    5    5    8    4    9    6

1976                  ------|---------------------
 2014  56 15 15 14     38   13    6    9    5    5    6    4    7    6

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------
```

```
                      NORTHWEST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
             ETHI ANGLO     GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     ----------|-----------
 1862  16 24 28 32     6    6    8    9   11   13    7   14   10   16

1972                                    -----------|----------
 1826  15 24 29 31     6    6    8   10   10   11   10   14   14   12

1973                                  ------------|---------
 1533  17 22 28 32     6    7    8    9   10   10   10   16   12   12

1974                                 ------------|----------
 1397  21 21 25 33     9    8    8    6   11   11   10   11   14   13

1975                                    ------------|----------
 1191  18 18 28 37     9    6    6    5    9   11   12   11   16   15

1976                               ---------------|-----------
  829  22 15 27 36    12    7    7    5    7   12    9   12   13   16

-------------------------------------------------------------------------
             ETHI BLACK     GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                 --|--------
  934  78 13  7  2    62   11    7    7    4    4    2    1    1    0

1972                  ---|--------
 1160  74 19  5  1    49   18   13    9    5    2    2    2    1    0

1973                  ----|-------
 1197  73 18  7  2    47   19   11    9    6    3    3    2    1    0

1974                 -|-----
 1004  85 12  3  0    69   13    6    4    4    2    1    0    0    0

1975                 -|-------
 1125  83 12  4  1    66   14    8    4    4    3    1    1    0    0

1976                 -|-------
  841  82 13  4  1    68   11    7    5    3    2    2    1    0    0

LARGE CITY NORMS                   -----------|-----------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

NORTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                        ETHI MEXAM     GRADE  6      MATHEMATICS
---------------------------------------------------------------------------
          QUARTILE                            PERCENTILES
FALL      DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N         1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                        -----|------------
  610   58 27 13  2       32   20   12   10   11    6    4    4    1    0

1972                        -----|---------
  553   61 24 13  3       30   21   16   10    7    5    5    4    1    1

1973                        -----|------------
  587   59 25 12  4       35   16   13   10   10    6    3    4    2    1

1974                    ----|-----------
  574   71 16 10  3       51   16    9    6    6    5    4    2    2    0

1975                    -----|----------
  543   71 18 10  1       50   16   11    7    6    6    3    2    1    0

1976                    ------|------------
  541   67 19 11  4       49   15    9    6    7    5    4    2    3    1

---------------------------------------------------------------------------
                        ETHI TOTAL     GRADE  6      MATHEMATICS
---------------------------------------------------------------------------
          QUARTILE                            PERCENTILES
FALL      DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N         1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                         -------------|---------------
 3486   40 22 20 18       26   10    8    9    9    9    5    9    6    9

1972                         ------------|----------------
 3610   41 23 19 17       24   12   11   10    8    7    6    9    8    6

1973                         -----------|----------------
 3365   44 21 18 16       26   13   10    9    9    7    6    9    6    6

1974                      ---------|-------------------
 3019   52 17 15 16       37   11    7    5    7    7    6    6    7    6

1975                      ---------|-------------------
 2911   53 16 15 16       39   11    8    5    7    7    6    5    7    6

1976                    --------|----------------------
 2267   55 15 14 15       42   11    7    5    6    6    5    6    6    6

LARGE CITY NORMS                    -------------|-------------
        25 25 25 25       10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                  NORTHWEST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                 ETH: ANGLO     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     -------------|----------
 1936   15 19 25 41     7    5    7    7    8    9   11   13   15   18

1972                                    --------------|----------
 1807   16 19 26 40     6    6    7    7    8   10   11   13   15   16

1973                                 -------------|------------
 1523   20 22 26 32     8    7    8    7   10    9   11   13   12   13

1974                                   --------------|---------
 1506   16 19 29 35     6    8    6    8    8   11   12   14   13   14

1975                                    -------------|---------
 1290   14 20 30 37     6    5    6    9    7   11   13   13   14   15

1976                                -------------|------------
 1104   21 22 27 31    10    6    7   10    9   10   12   11   12   12

------------------------------------------------------------------------
                 ETH: BLACK     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ---|--------
  823   74 17  7  2    49   19   11    8    4    3    3    2    1    0

1972                   ---|------
  865   79 15  5  1    52   21   11    6    4    2    2    1    1    0

1973                   --|------
  915   82 12  5  1    53   23   10    6    3    2    2    1    0    0

1974                  ---|-------
  786   80 15  4  1    56   17   11    7    4    3    1    0    0    0

1975                  ---|-------
  781   78 16  5  1    56   17   10    7    5    3    2    1    0    0

1976                  --|------
  740   83 12  4  1    64   15    7    7    3    2    1    1    0    0

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                    -----|----------
  502  61 24 11  4    31   22   16    8    8    5    4    3    2    1

1972                   ------|-------
  481  64 24  8  4    35   21   16    9    7    5    2    2    2    1

1973                   ----|--------
  509  70 20  9  2    39   22   15    6    7    5    3    2    1    0

1974                  ---|------------
  454  69 19  9  4    48   15    9   10    6    6    2    4    1    0

1975                  ----|-----------
  434  66 21 11  3    42   19   10    9    6    5    4    3    1    0

1976                  ---|-----------
  512  70 19  8  4    49   17    7    9    7    4    4    2    1    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ---------------|-----------------
 3323  37 19 19 25    21   11    9    7    7    7    8    9   10   11

1972                     ------------|-------------------
 3210  40 19 18 24    23   13   10    7    7    7    7    8    9    9

1973                   ----------|------------------
 3007  47 19 17 17    27   15   10    7    7    6    7    7    7    7

1974                   -------------|------------------
 2794  43 18 19 20    27   11    8    8    6    8    7    8    8    8

1975                   -------------|-----------------
 2557  43 19 19 19    28   11    8    8    7    7    8    8    8    8

1976                 ----------|-----------------
 2407  51 19 15 15    35   11    7    9    7    6    7    6    6    6

LARGE CITY NORMS                ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                      NORTHWEST  SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                    ETHI ANGLO     GRADE  9      MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                       ----------|----------
 1995 10 21 32 37       2    5   10    8    7   15   12   10   19   13

1972                                       ----------|----------
 1818 11 19 34 36       2    5   10    6    6   16   12   10   20   12

1973                                       ----------|--------
 1697 10 23 33 33       1    5   11    8    9   16   12   10   19    9

1974                                       -------|------------
 1442 11 23 36 31       1    5   11    8    9   19   11   12   17    9

1975                                    -------------|---------
 1482 11 23 35 31       1    5   11    8    8   15   15   10   18    9

1976                                    ----------|----------
 1266 12 23 37 28       2    4   11    9    9   19   13   11   14    8

------------------------------------------------------------------------
                    ETHI BLACK     GRADE  9      MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            ----|-------
  781 36 42 21  1      10   14   28   15   12   14    5    2    0    0

1972                            --------|-------
  824 33 41 24  2       5   15   29   14   12   15    6    3    1    0

1973                            --------|-------
  758 32 43 23  2       4   15   28   15   13   17    5    2    2    0

1974                            --------|-------
  761 34 40 24  2       4   16   27   14   13   16    6    2    1    0

1975                            --------|-------
  759 32 43 23  2       4   13   29   16   12   17    5    2    1    0

1976                            --------|---
  737 35 42 21  1       6   15   29   15   13   15    5    2    1    0

LARGE CITY NORMS                  ------------|-------------
      25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                    NORTHWEST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                       ETH1 MEXAM     GRADE  9      MATHEMATICS
--------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             --------|-------
  414   37 36 24  4      9   14   26   12   11   15    8    2    2    0

1972                             --------|-------
  465   35 38 24  3      7   16   23   14   13   17    5    3    2    0

1973                             --------|-------
  354   32 39 25  4      4   14   27   16   10   16    7    3    3    0

1974                             ----|-----------
  435   35 39 23  2      5   18   29   12   11   16    6    2    1    0

1975                             --------|-------
  419   29 40 29  2      5   15   20   15   15   17    9    3    1    0

1976                             --------|---
  339   30 45 23  2      4   12   32   14   13   14    8    1    1    1

--------------------------------------------------------------------------
                       ETH1 TOTAL     GRADE  9      MATHEMATICS
--------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                 -----------|-----------
  3247  20 28 28 23      5    8   16   10    9   15   10    7   12    8

1972                                 -----------|-----------
  3167  20 28 30 [illegible]    4    9   17   10    9   16   10    7   12    7

1973                                 -----------|---------
  2855  19 31 29 21      2    9   18   11   10   16   10    7   12    6

1974                                 -------|-------------
  2698  22 30 30 18      2   10   18   10   11   18    8    7   10    5

1975                                 -------|-------------
  2715  20 31 31 18      3    9   18   11   11   16   11    7   11    5

1976                                 -------|-----------
  2400  22 32 30 16      4    9   20   12   11   17   10    7    8    4

LARGE CITY NORMS                  ------------|------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO      GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                          ----------|-------
 1735   8 19 33 40      2    4    5    7    9    9   12   19   18   14

1972                                          ----------|-------
 1755   8 19 33 41      2    3    5    8    7    9   13   19   19   14

1973                                     ------------|---------
 1232  11 23 34 32      3    5    8    9   11    7   19   14   12   13

1974                                          ----------|-------
 1411   9 20 32 40      2    3    7    8    8    8   13   18   20   13

1975                                       -------------|-------
 1302   9 21 31 39      2    4    8    8    9    8   12   18   19   13

1976                                       -----------|-------
 1294  10 23 34 33      2    4    8   10    9   11   13   17   15   11

-------------------------------------------------------------------------
                ETHI BLACK      GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       -----|------
  384  56 37  7  0     18   29   22   18    7    4    2    1    0    0

1972                       -----|------
  411  53 38  7  1     20   23   21   18    9    3    3    1    0    0

1973                     ----|-----
  331  66 27  6  1     31   27   19   10    7    3    2    1    1    0

1974                       -----|------
  427  56 37  7  1     16   23   30   14    9    4    2    1    0    0

1975                       -----|------
  456  55 38  7  1     17   25   23   19    8    4    3    1    1    0

1976                       -----|------
  443  57 33  9  2     17   26   27   14    6    5    2    2    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                      NORTHWEST  SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                  ETHI MEXAM      GRADE 12      MATHEMATICS
---------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                              ------|--------
   137 46 39 10  4      13   20   26   13   13    6    3    4    2    0

1972                            --------|---------
   143 49 34 13  4      22   14   25   12    9    7    4    3    3    1

1973                          ----|----------
   169 59 26 12  2      28   22   16   14    5    3    7    4    1    1

1974                            --------|---------
   187 44 40 12  4      14   20   23   17   10    7    3    2    3    1

1975                            --------|------
   206 48 35 13  4      16   23   20   17    8    7    2    4    3    1

1976                           -----|---------
   202 52 33 14  1      13   22   28   12    9    7    4    2    0    0

---------------------------------------------------------------------------
                  ETHI TOTAL      GRADE 12      MATHEMATICS
---------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                  -------------|----------
  2314 19 23 27 31       6    9    9    9    9    8   10   15   14   10

1972                                   --------------|----------
  2372 19 23 27 31       6    8   10   10    8    8   10   15   14   11

1973                            ---------------|------------
  1786 26 24 26 23      10   11   11   10   10    6   15   10    9    9

1974                               --------------|-----------
  2068 22 25 25 28       6    9   13   10    9    7   10   13   14    9

1975                               --------------|----------
  2034 23 27 24 26       7   11   13   11    9    7    9   12   13    9

1976                               -----------|-----------
  1984 25 27 26 22       7   11   14   11    9    9    9   12   10    7

LARGE CITY NORMS                  ------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE   9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                  ---------------|----------
 1995  15 22 32 31      4    7    9    5   12   11   17    9   14   12

1972                                       ----------|-----------
 1818  15 20 31 33      4    8    8    5   11   12   15    9   18   11

1973                                       ----------|----------
 1702  14 22 33 31      3    7    9    5   12   12   16    8   15   12

1974                                  ---------------|----------
 1461  16 21 33 30      4    8    9    6   11   12   17    9   15   11

1975                                  ---------------|----------
 1497  16 19 35 29      4    8    9    5   10   13   17   10   15   10

1976                                  ------------|------------
 1285  19 23 31 27      6    8   10    5   13   12   15    9   14    9

------------------------------------------------------------------------
                ETHI BLACK     GRADE   9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ----|-------
  781  61 29  9  1     22   28   21    8   11    5    3    1    0    0

1972                       ------|-----------
  824  56 31 12  2     19   27   20    8   13    7    4    2    1    0

1973                         ----|-----
  758  56 32 10  2     17   27   21   10   13    5    4    2    1    0

1974                       ------|-----------
  775  52 34 12  3     17   25   20   10   13    7    4    1    1    0

1975                       ------|-----
  774  58 29 11  1     18   27   23   10   10    7    3    1    0    0

1976                       ------|-----
  756  58 30 11  2     19   28   21    8   12    7    4    1    1    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                       SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                 ETHI MEXAM      GRADE  9     SOCIAL STUDIES
-----------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971
                          ------|----------
  224  51 35 12  2    25   22   15   11   14    6    4    2    1    1

1972
                            ------|-----------
  300  45 34 18  3    15   22   15   11   15    9    8    1    2    0

1973
                            ------|-----------
  303  48 34 13  5    14   23   20    8   17    6    6    2    4    0

1974
                          ------|----------
  337  54 33 12  2    18   25   19    6   18    5    5    2    1    0

1975
                            ------|--------
  405  49 36 13  2    13   25   19   12   15    8    5    0    1    1

1976
                            ------|--------
  401  49 35 13  3    14   26   22    7   15    8    4    0    2    0

-----------------------------------------------------------------------
                 ETHI TOTAL      GRADE  9     SOCIAL STUDIES
-----------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971
                            ---------|------------
 2651  40 27 20 13    17   16   15    7   12    9    8    4    7    4

1972
                              -------|------------
 2706  39 30 21 10    12   19   16    8   14   10    9    4    6    2

1973
                              -------|----------
 2752  41 31 20  8    12   20   17    8   14    9    9    3    4    3

1974
                            ------|-------------
 2831  43 32 17  8    14   21   17    9   14    8    7    3    4    2

1975
                            ------|-----------
 2923  45 32 17  6    13   23   19    9   14    9    7    2    4    2

1976
                            ------|-------------
 1882  44 28 20  8    14   21   16    8   13   10    8    3    4    2

LARGE CITY NORMS                ------------|--------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                       SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETH: ANGLO      GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                  ------------|----------
 1173  18 27 33 22       7    8    6   11   13   12   11   14    7   11

1972                              -------------|-----------
 1304  21 29 33 16       7   10    8   13   12   13   11   13    4    7

1973                             -----------|------------
  941  26 31 26 17       8   10   16    8   15    9   12    7    6    8

1974                                ---------------|---------
  897  19 27 32 21       8    8    6   12   11   10   12   15    6    9

1975                              -------------|-----------
  835  24 29 31 16       9   12    8   13   11   11   10   13    6    6

1976                              ---------|-----------
  704  25 33 28 14       9   12    9   14   15   12    9   10    5    6

-------------------------------------------------------------------------
                 ETH: BLACK      GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ----|-------
   45  71 20  7  2      36   22   22    7    4    2    2    2    2    0

1972                     ----|---------
  236  67 22  8  3      39   23    9   10    8    6    2    2    1    0

1973                    ------|-----
  236  70 18 10  2      39   21   19    4    4    4    4    2    1    1

1974                     -------|---------
  368  61 27  9  3      34   21   10   13    8    4    4    2    1    1

1975                     ----|---------
  446  69 21  9  2      37   24   13   11    4    3    4    2    1    0

1976                     ----|---------
  599  66 27  6  1      37   24   14   15    5    4    1    1    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                  ETHI MEXAM       GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          -------|--------
    60 52 32 13  3     20   28    8   15   12    7    5    3    2    0

1972                          -------|--------
   139 53 29 15  2     22   25   12   16    9    6    7    3    1    0

1973                         -----|----------
   141 60 28 11  1     27   23   16   11   10    6    5    0    0    1

1974                            ------|---------
   182 44 39 15  2     15   20   20   12   16    7    4    4    1    0

1975                         --------|-------
   197 56 28 13  3     27   20   17   12    8    6    5    3    2    1

1976                         --------|--------
   185 52 33 12  3     23   21   13   15   14    4    5    4    1    1

-------------------------------------------------------------------------
                  ETHI TOTAL       GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                              -------------|-----------
  1317 22 27 31 21      9    9    7   11   12   12   10   13    6   10

1972                           ----------|------------
  1722 31 28 28 13     13   13    9   13   11   11    9   11    3    6

1973                          ----------|------------
  1343 38 28 21 12     16   14   17    8   12    8   10    6    5    6

1974                          ---------|--------------
  1475 33 29 24 14     16   13    9   13   11    8    9   11    5    6

1975                      ----------|--------------
  1506 42 27 21 10     20   16   11   12    8    8    8    8    4    4

1976                     ---------|------------
  1511 45 31 17  7     22   18   11   14   11    8    5    5    3    3

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                              NORTHWEST  SUBDISTRICT
                    INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------------------
                   ETHI MEXAM      GRADE  9      SOCIAL STUDIES
-----------------------------------------------------------------------------------------
        QUARTILE                                  PERCENTILES
FALL   DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                            ----|----------
 414   55 28 14  3       17    26    21     7    12     9     4     2     1     0

1972                          ------|----------
 465   54 29 14  3       20    25    17     8    13     8     5     2     1     1

1973                            ----|----------
 357   51 31 13  4       14    26    20     9    13     6     6     2     3     1

1974                          ------|----------
 454   53 32 13  2       21    23    20    10    12     7     6     1     2     0

1975                            ----|----------
 433   51 31 15  2       14    25    22     8    13     8     6     2     1     0

1976                            ------|--------
 359   49 35 14  3       16    24    19     9    15     7     4     3     1     1

-----------------------------------------------------------------------------------------
                   ETHI TOTAL      GRADE  9      SOCIAL STUDIES
-----------------------------------------------------------------------------------------
        QUARTILE                                  PERCENTILES
FALL   DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                                -------------|-----------
3247   31 25 25 20       10    15    14     6    12     9    12     6     9     8

1972                              -------------|-------------
3167   32 25 24 20       10    16    13     6    12    10    11     6    11     6

1973                                -------------|-----------
2863   30 26 24 20        8    15    14     7    13    10    12     6    10     7

1974                              -------------|-----------
2754   33 27 24 17       10    16    14     7    12    10    11     5     9     6

1975                              -------------|-----------
2758   34 24 25 17        9    16    15     7    10    10    11     6     9     6

1976                              -------------|---------
2461   35 27 22 15       11    17    15     6    13    10    10     5     8     5

LARGE CITY NORMS                    -------------|-------------
       25 25 25 25       10    10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------------------------
```

```
                   NORTHWEST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                           ---------|--------
 1735   7 19 37 37       3    3    4    8    9   12   12   21   12   17

1972                                        ----------|--------
 1755  11 21 38 30       5    3    5    7   11   13   13   18    9   15

1973                                    ------------|---------
 1251  16 22 35 27       6    6    9    6   10   10   18   12    9   14

1974                                     -------------|--------
 1431  12 19 38 31       6    4    4    9    9   13   13   20    8   14

1975                                     -----------|----------
 1324  14 21 36 29       7    5    4    8   11   11   13   19    9   13

1976                                   ------------|--------
 1323  15 25 35 24       5    7    6   10   12   13   13   15    7   11

-------------------------------------------------------------------------
                ETH: BLACK     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ---|---------
  384  74 19  7  1      43   23   16    5    6    4    2    0    1    0

1972                    ----|---------
  411  67 24  8  1      39   21   12   12    7    4    3    2    0    0

1973                   ----|------
  333  77 14  8  1      50   19   13    4    5    5    2    1    1    0

1974                    ----|---------
  430  65 26  9  1      34   24   10   14    7    5    3    2    0    0

1975                    ----|---------
  458  69 21 10  1      38   26   11   10    5    7    2    2    0    0

1976                    ----|-------
  451  70 22  6  2      39   27   10   10    6    2    3    2    1    1

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI MEXAM     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      --------|---------
  137  48 34 15  3     23   20   15   10   12    6    4    6    1    1

1972                     --------|-------
  143  57 28 13  1     28   20   15   13   10    8    2    3    1    0

1973                   ----|----------
  170  65 20  9  5     46   13   12    9    6    2    7    2    2    2

1974                     ------|---------
  190  57 26 14  3     27   25   12   13    7    5    4    5    2    1

1975                      -------|----------
  206  50 32 15  4     25   19   13   14   11    7    4    4    1    1

1976                    -------|-----------
  206  58 29 12  1     33   20    8   12   13    6    4    3    0    0

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                              ----------------|----------
 2314  21 21 30 28     11    8    6    8    9   10   10   16    9   13

1972                              ---------------|---------
 2372  24 22 31 23     12    8    7    9   11   11   11   14    6   12

1973                          ---------------|------------
 1810  32 20 27 20     18    9   10    6    9    8   14    9    7   11

1974                             --------------|------------
 2095  27 21 29 22     14   10    6   10    8   11   10   15    6   10

1975                          ----------------|-------------
 2058  30 22 28 20     16   12    6    9   10   10   10   13    6    9

1976                          -------------|-------------
 2025  32 25 26 17     16   13    7   11   11   10   10   11    5    8

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: ANGLO     GRADE  9        SCIENCE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     -------------|-------
 1995  13 24 24 39      6    4    7    7   13    8   12   14   18   10

1972                           ----------|---------
 1818  27 39 27  7     12   10   12   14   18   11   13    9    1    0

1973                           ----------|---------
 1701  26 40 28  6     12   10   11   14   19   12   12    8    1    0

1974                                   -----------|-----------
 1463  15 27 25 33      6    5    8    9   14    9   13   12   16    8

1975                                   -----------|-----------
 1497  14 26 26 33      5    6    8    8   14    9   13   13   17    6

1976                                ------------|------------
 1286  18 28 24 29      6    8    8    9   15   10   11   13   13    6

------------------------------------------------------------------------
                ETH: BLACK     GRADE  9        SCIENCE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ---|---------
  781  59 35  5  1     33   18   19   14   11    2    2    1    1    0

1972                     ----|-----
  824  69 28  3  0     40   20   21   11    6    2    1    0    0    0

1973                     ----|-----
  759  70 27  3  0     39   23   17   11    7    2    1    0    0    0

1974                      -----|------
  774  57 35  6  1     29   18   21   13   11    3    2    0    1    0

1975                      ---|---------
  773  63 31  5  1     28   22   21   13   11    4    1    1    0    0

1976                      ---|---------
  756  62 34  3  0     32   20   20   13   11    2    2    0    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI HEXAM     GRADE  9        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|--------
  414  57 32  8  2     29   18   17   11   13    5    3    1    2    0

1972                    ----|------
  465  75 22  3  0     46   19   15   11    7    2    1    0    0    0

1973                     ---|------
  358  71 25  4  0     41   21   16   10    8    2    2    1    0    0

1974                      -----|--------
  454  57 32  9  2     31   17   18   13    9    4    4    2    1    0

1975                      -----|--------
  436  57 33  6  3     29   17   21   13   11    3    3    3    1    0

1976                      ---|----------
  358  59 32  7  2     30   21   15   15   11    3    3    2    1    0

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE  9        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ------------|----------------
 3247  30 28 17 25     15    9   11    9   13    6    9    9   12    6

1972                        ------|----------
 3167  46 34 16  4     24   14   15   13   14    7    8    5    1    0

1973                        ------|------------
 2864  44 35 18  4     23   15   14   13   15    8    8    5    1    0

1974                        -----------|---------------
 2755  34 30 17 18     17   11   13   11   12    7    8    7    9    4

1975                        -----------|---------------
 2760  35 29 17 19     16   12   13   10   12    7    8    8   10    3

1976                         -------|--------------
 2461  38 31 15 16     18   14   13   11   13    6    7    7    7    3

LARGE CITY NORMS                 ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHWEST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                      ETH: ANGLO     GRADE 12        SCIENCE
------------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                                 -------|--------
 1735  7 13 39 41     3    3    3    3    7    9   21   18   16   16

1972                                  -------|------
 1755 24 46 30  0    10   10   15   12   23   22    8    0    0    0

1973                             -------|------
 1252 40 51  8  0    14   16   17   23   22    8    0    0    0    0

1974                                            ----------|------
 1432 12 14 38 36     6    4    6    4    6   10   21   14   15   14

1975                                            ---------|--------
 1325 13 15 39 33     7    5    5    3    9    9   23   15   13   13

1976                                          -----------|-------
 1323 11 19 40 29     4    5    7    6    8   10   22   15   13    9

------------------------------------------------------------------------
                      ETH: BLACK     GRADE 12        SCIENCE
------------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  ----|-------
  384 71 21  7  1    42   22   17    7    4    2    5    1    0    0

1972                --|-----
  411 89  9  1  0    68   16    9    2    3    1    0    0    0    0

1973                -|----
  334 93  7  1  0    69   19    6    3    2    1    0    0    0    0

1974                  ----|-------
  430 71 20  7  1    42   21   16    6    7    3    3    1    0    0

1975                  ----|-------
  458 72 21  7  0    43   23   14    5    7    3    4    1    0    0

1976                  ----|-----
  452 75 17  6  2    48   22   13    5    4    2    4    1    1    0

LARGE CITY NORMS                     ------------|------------
      25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
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                         NORTHWEST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI MEXAM     GRADE 12        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       -------|-----------
  137  45 30 19  6     22   19   16    9    9    9    7    4    3    1

1972                  --|--------
  143  79 18  3  0     57   17   15    7    1    2    1    0    0    0

1973                  -|-----
  169  89  9  2  0     64   19    9    4    2    2    0    0    0    0

1974                    ------|---------
  189  59 24 13  4     34   16   17   10    5    5    7    3    2    1

1975                    ------|---------
  206  60 19 16  4     40   17   14    6    4    4   11    1    3    1

1976                    ------|-------
  205  61 27  9  2     37   19   16    9    8    3    6    1    1    0

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE 12        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                ----------------|--------
 2314  20 16 32 32     11    7    7    4    7    8   18   14   13   12

1972                       ----------|--------
 2372  40 38 23  0     24   11   14   10   13   17    6    0    0    0

1973                    --------|--------
 1810  55 39  6  0     30   17   14   17   16    6    0    0    0    0

1974                            ----------------|------------
 2095  28 16 29 26     16    9    9    5    6    8   16   10   11   10

1975                        ------------------|-----------
 2059  31 17 29 22     18   10    8    4    8    7   17   10    9    8

1976                          ---------------|------------
 2025  31 20 29 20     17   10   10    6    8    8   17   11    8    6

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 2

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3658	3414	3050	2818	2803	2479
AVERAGE DAILY ATTENDANCE	3206	2858	2666	2438	2363	2205
INDEX OF AVERAGE DAILY ATTENDANCE	87.6	83.7	87.4	86.5	84.3	89.0
AVERAGE DAILY TRANSACTIONS	6.6	6.7	6.6	5.9	6.1	4.1
INDEX OF AVERAGE DAILY TRANSACTIONS	0.18	0.20	0.22	0.21	0.22	0.17
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.02	-.02	-.03	-.06
ENROLLMENT BY ETHNICITY						
% OTHER	48.6	45.1	42.8	41.7	40.3	39.5
% BLACK	32.9	34.4	35.8	32.7	32.8	32.8
% MEXICAN-AMERICAN	17.8	20.1	20.5	24.5	25.8	26.4
% AMERICAN INDIAN	0.3	0.2	0.2	0.3	0.3	0.3
% ORIENTAL	0.4	0.3	0.6	0.8	0.8	1.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 4

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3620	3716	3446	3240	2849	2344
AVERAGE DAILY ATTENDANCE	3185	3158	3010	2818	2389	2124
INDEX OF AVERAGE DAILY ATTENDANCE	88.0	85.0	87.4	87.0	83.9	90.6
AVERAGE DAILY TRANSACTIONS	6.2	6.9	7.0	6.5	6.0	3.6
INDEX OF AVERAGE DAILY TRANSACTIONS	0.17	0.18	0.20	0.20	0.21	0.15
INDEX OF SCHOOL ATTRACTION	-.01	-.02	-.02	-.02	-.02	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	53.1	48.8	45.1	40.0	37.5	38.6
% BLACK	28.1	33.2	36.4	37.9	39.6	33.0
% MEXICAN-AMERICAN	18.3	17.4	17.7	21.5	21.2	27.0
% AMERICAN INDIAN	0.2	0.2	0.4	0.3	0.4	0.3
% ORIENTAL	0.3	0.4	0.4	0.4	1.3	1.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 6

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3700	3912	3555	3387	3244	2563
AVERAGE DAILY ATTENDANCE	3172	3320	3108	3001	2803	2323
INDEX OF AVERAGE DAILY ATTENDANCE	85.7	84.8	87.4	88.6	86.4	90.6
AVERAGE DAILY TRANSACTIONS	5.9	6.7	6.6	6.4	6.0	3.8
INDEX OF AVERAGE DAILY TRANSACTIONS	0.16	0.17	0.19	0.19	0.19	0.15
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.02	-.02	-.02	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	52.3	50.4	46.2	44.6	40.8	39.8
% BLACK	28.9	32.2	34.7	34.4	39.4	34.1
% MEXICAN-AMERICAN	18.2	16.7	18.1	20.3	18.8	25.4
% AMERICAN INDIAN	0.1	0.4	0.5	0.3	0.3	0.2
% ORIENTAL	0.4	0.3	0.5	0.4	0.8	0.5

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

ELEMENTARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	1111	766	1287	1018	782
% FEMALE	****	87.3	87.2	87.6	86.5	91.7
% MALE	****	12.8	12.9	12.5	13.5	8.3
AGE						
% LESS THAN 26 YEARS OLD	****	20.6	17.5	18.0	15.2	10.8
% 26 - 35 YEARS OLD	****	30.0	34.6	36.5	36.0	35.2
% 36 - 45 YEARS OLD	****	20.3	19.3	17.6	18.7	19.0
% 46 - 55 YEARS OLD	****	15.5	14.4	12.6	15.3	18.2
% 56 - 65 YEARS OLD	****	12.0	11.6	12.1	12.9	14.2
% OVER 65 YEARS OLD	****	1.9	2.6	3.5	1.6	2.7
ETHNICITY						
% WHITE	****	67.2	65.9	68.0	64.6	65.0
% BLACK	****	27.5	28.1	24.3	27.6	25.0
% MEXICAN-AMERICAN	****	5.1	5.9	7.5	7.6	9.9
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	43.9	43.3	42.9	37.3	36.4
% 6 - 10 YEARS OF EXPERIENCE	****	18.1	19.0	20.4	21.6	19.6
% 11 - 15 YEARS OF EXPERIENCE	****	9.8	11.6	10.1	12.5	12.4
% 16 - 20 YEARS OF EXPERIENCE	****	9.8	8.1	8.4	10.1	9.8
% 21 - 40 YEARS OF EXPERIENCE	****	16.9	16.9	16.6	18.2	21.0
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.2	0.3	0.2	0.0	0.0
% WITH BACHELORS DEGREE ONLY	****	73.0	69.6	66.5	59.2	55.9
% WITH MASTERS DEGREE	****	26.8	30.2	33.4	40.6	44.1
% WITH DOCTORATE DEGREE	****	0.0	0.0	0.1	0.2	0.1

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 8

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3668	3533	3276	3258	3018	2572
AVERAGE DAILY ATTENDANCE	3106	2962	2784	2856	2688	2351
INDEX OF AVERAGE DAILY ATTENDANCE	84.7	83.8	85.0	87.7	89.1	91.4
AVERAGE DAILY TRANSACTIONS	4.8	5.4	5.1	5.4	4.5	2.9
INDEX OF AVERAGE DAILY TRANSACTIONS	0.13	0.15	0.16	0.17	0.15	0.11
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.03	-.02	-.02	-.04
ENROLLMENT BY ETHNICITY						
% OTHER	57.0	55.5	49.3	51.0	47.7	46.5
% BLACK	27.2	28.0	31.8	29.0	30.7	30.1
% MEXICAN-AMERICAN	15.4	15.8	18.2	19.2	20.6	22.8
% AMERICAN INDIAN	0.2	0.3	0.3	0.3	0.2	0.2
% ORIENTAL	0.3	0.4	0.4	0.5	0.7	0.4
NUMBER OF DROPOUTS PER 100	****	0.2	1.6	1.9	0.4	****
% OTHER	****	0.2	0.6	0.6	0.1	****
% BLACK	****	0.0	0.5	0.5	0.1	****
% MEXICAN-AMERICAN	****	0.0	0.6	0.8	0.3	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 9

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3576	3575	3372	3336	3227	2761
AVERAGE DAILY ATTENDANCE	3010	2954	2765	2780	2751	2527
INDEX OF AVERAGE DAILY ATTENDANCE	84.2	82.6	82.0	83.4	85.2	91.5
AVERAGE DAILY TRANSACTIONS	6.3	6.2	6.1	6.7	4.9	3.2
INDEX OF AVERAGE DAILY TRANSACTIONS	0.18	0.17	0.18	0.20	0.15	0.11
INDEX OF SCHOOL ATTRACTION	-.05	-.04	-.05	-.05	-.03	-.04
ENROLLMENT BY ETHNICITY						
% OTHER	56.5	55.0	55.5	48.0	49.5	47.5
% BLACK	27.0	28.3	29.3	31.8	32.7	33.0
% MEXICAN-AMERICAN	15.8	16.1	14.6	19.7	17.0	18.8
% AMERICAN INDIAN	0.4	0.2	0.2	0.2	0.2	0.3
% ORIENTAL	0.3	0.3	0.4	0.3	0.6	0.5
NUMBER OF DROPOUTS PER 100	****	0.8	1.6	3.6	0.3	****
% OTHER	****	0.2	0.7	0.7	0.1	****
% BLACK	****	0.4	0.4	1.8	0.1	****
% MEXICAN-AMERICAN	****	0.1	0.5	1.1	0.1	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

GRADE 12

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2521	2623	2502	2458	2326	2133
AVERAGE DAILY ATTENDANCE	2083	2157	2028	2023	1945	1984
INDEX OF AVERAGE DAILY ATTENDANCE	82.6	82.2	81.0	82.3	83.6	93.0
AVERAGE DAILY TRANSACTIONS	7.3	7.4	7.6	7.8	4.0	2.3
INDEX OF AVERAGE DAILY TRANSACTIONS	0.29	0.28	0.30	0.32	0.17	0.11
INDEX OF SCHOOL ATTRACTION	-.20	-.19	-.20	-.20	-.06	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	75.0	74.1	68.1	68.9	65.3	65.4
% BLACK	18.7	18.7	22.0	21.7	22.6	23.1
% MEXICAN-AMERICAN	5.9	6.5	9.3	8.7	11.2	10.9
% AMERICAN INDIAN	0.1	0.3	0.2	0.3	0.1	0.1
% ORIENTAL	0.3	0.3	0.4	0.4	0.8	0.5
NUMBER OF DROPOUTS PER 100	****	2.7	4.3	3.6	2.0	****
% OTHER	****	1.8	2.1	1.9	1.3	****
% BLACK	****	0.4	1.0	1.3	0.5	****
% MEXICAN-AMERICAN	****	0.4	1.2	0.5	0.3	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

NORTHWEST SUBDISTRICT SUMMARY

SECONDARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	869	633	972	771	660
% FEMALE	****	60.1	59.2	61.0	59.3	60.0
% MALE	****	40.0	40.8	39.0	40.7	40.0
AGE						
% LESS THAN 26 YEARS OLD	****	21.6	18.6	15.3	11.0	7.4
% 26 - 35 YEARS OLD	****	39.3	40.4	44.0	44.9	41.6
% 36 - 45 YEARS OLD	****	17.4	18.0	18.5	20.5	23.4
% 46 - 55 YEARS OLD	****	13.3	13.1	13.1	15.3	17.2
% 56 - 65 YEARS OLD	****	7.3	8.3	7.4	7.4	8.8
% OVER 65 YEARS OLD	****	1.2	1.6	2.2	1.1	1.9
ETHNICITY						
% WHITE	****	70.7	69.6	73.5	69.8	70.1
% BLACK	****	24.4	25.5	21.9	25.5	23.9
% MEXICAN-AMERICAN	****	4.8	4.9	4.3	4.8	5.7
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	49.3	48.0	44.7	37.1	33.4
% 6 - 10 YEARS OF EXPERIENCE	****	21.2	18.8	22.1	24.6	26.1
% 11 - 15 YEARS OF EXPERIENCE	****	11.1	12.2	12.8	15.4	16.0
% 16 - 20 YEARS OF EXPERIENCE	****	7.8	8.8	8.5	10.7	10.9
% 21 - 40 YEARS OF EXPERIENCE	****	9.6	11.1	10.8	11.6	12.6
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.3	1.2	0.6	0.3	0.3
% WITH BACHELORS DEGREE ONLY	****	66.5	64.2	60.9	55.0	54.0
% WITH MASTERS DEGREE	****	33.0	34.5	38.3	44.4	45.2
% WITH DOCTORATE DEGREE	****	0.2	0.3	0.4	0.4	0.5

**** DATA NOT AVAILABLE

Northeast Subdistrict

1. Anglo median scores in reading remained above norm in all grades, improving in grade 2 (74-80 percentiles), holding constant in grade 4 (62-60 percentiles), and declining in the remaining grades (from near 65 to near 55 percentiles). Across grades, actual growth kept pace with expected growth only in high school. Black median scores remained very low, improving in grade 2 to percentile 26. Across grades, actual growth trailed behind growth expected of low scorers. Mexican-American median scores remained low and declined further within all grades. Across grades, actual growth equalled expected growth only in high school.

2. Anglo median scores in language remained at or above norm in all grades, ranking highest in grade 2 (68-64 percentile), holding steady in grade 4 (percentile 52), and declining in the remaining grades. Across grades, actual growth excelled expected growth over grades 4-6-8 and trailed expected growth over grades 2-4-6 and grades 9-12. Black median scores remained very low, improving within grade 2 from percentile 12 to 24 and less dramatically in grade 9, remaining steady in grade 12, and declining in the remaining grades. Across grades, actual growth trailed behind growth expected of low scorers. Mexican-American median scores remained low and fell lower within each grade except grade 12, which showed an increase of 12 percentile points since 1971. Across grades, actual growth equalled that expected of low scorers over grades 4-6-8 and grades 9-12.

3. Anglo median scores in mathematics remained above norm only in grades 2 and 12 and declined within all grades. Across grades, actual growth exceeded that expected of below-norm scorers over grades 4-6-8 and grades 9-12 and badly trailed that expected of high scorers over grades 2-4-6. Black median scores remained very low, improving within grade 2 by 16 percentile points, holding steady within grade 12, and declining in the remaining grades. Across grades, actual growth badly trailed that expected of low scorers. Mexican-American median scores remained low, improving slightly in grade 2 and more in grade 12, holding steady in grade 9, and declining in grades 4, 6, and 8. Across grades, actual growth equalled that expected of low scorers over grades 4-6-8 and trailed expected growth over grades 9-12 and especially over grades 2-4-6.

4. Anglo median scores in social studies remained near norm in both grades, holding constant in grade 9 at percentile 48 and declining in grade 12 from percentile 58 to 52. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 slightly exceeded growth expected of near-norm scorers. Black median scores remained below norm in both grades, holding steady at percentile 24 in grade 9 and at percentile 20 in grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 trailed growth expected of low scorers. Mexican-American median scores remained below norm in both grades, improving by 4 percentile points within grade 9 and by 14 percentile points within grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 exceeded growth expected of below-norm scorers.

5. Anglo median scores in science fell below norm in grade 9 (50-40 percentile) and declined while remaining above norm in grade 12 (66-58 percentile). Black median scores remained below norm in both grades, steady in grade 9 at percentile 14 and less so in grade 12 at percentile 14. Mexican-American median scores remained below norm in both grades, declining in grade 9 (26-20 percentile) and improving in grade 12 (22-30 percentile). No statement can be made concerning actual growth from grade 9 in 1973 to grade 12 in 1976 because the science subtest was irrecoverably misscored by Region X in 1973.

6. The varying number of students tested each year from each ethnic group serves as an index of enrollment trends and as an influence on achievement trends. Anglo test-takers have decreased heavily in all grades since 1971, from a high of a 55% decrease in grade 4 to a low of a 21% decrease in grade 12. Black test-takers have decreased in grades 2 and 4 (by 14% and 31%, respectively); they have increased in the remaining grades; in grade 6 almost all of the increase occurred in 1972; in grades 8 and 12 the increase has been gradual since 1971; in grade 9 almost all of the increase occurred in 1976 as a result of the restored Madison High School. Mexican-American test-takers declined slightly in grade 12, remained steady in numbers in grade 4, and increased in the remaining grades, gradually over the years except for the large increase in 1976.

7. Since 1972 the number of elementary teachers has declined by 18%. The percentage of Anglo and black elementary teachers has dropped, allowing for an increase of Mexican-American teachers. Also since 1972 the number of secondary teachers has increased by 7%, although it has decreased since 1974. The percentage of Anglo secondary teachers has dropped, allowing for an increase in the percentage of minority teachers. At both levels, elementary and

secondary, this subdistrict claims the highest percentage of Anglo teachers in the District.

8. Since 1972 the percentage of elementary teachers who were less than 26 years old decreased from 19% to 9%. Similarly, the percentage of elementary teachers having less than six years of experience decreased from 38% to 31%. These changes were accompanied by a decrease in the percentage of elementary teachers holding only a bachelor's degree from 68% to 57% and by an increase in those holding a master's degree from 32% to 43%. This subdistrict currently claims the lowest percentage of very young elementary teachers and the lowest percentage of least-experienced elementary teachers in the District.

   Also since 1972 the percentage of secondary teachers who were less than 26 years old decreased from 16% to 6%. Similarly, the percentage having less than six years of experience decreased from 47% to 35%. These changes were accompanied by a decrease in the percentage of secondary teachers holding only a bachelor's degree from 57% to 46% and an increase in those holding a master's degree from 36% to 48%. This subdistrict currently claims the lowest percentage of very young secondary teachers and the highest percentage of secondary teachers holding higher degrees.

```
                        NORTHEAST  SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
               ETH: ANGLO    GRADE  2        READING
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                         ------------|---------
 1322 10 16 26 48     2    4    5    7    7    7    13   11   19   23

1973                                         ------------|---------
 1151 10 15 25 50     3    5    4    7    6    9    13   9    19   25

1974                             ----------------------|----------
 1088 24 13 21 42     9    9    9    2    8    4    8    14   13   24

1975                                     -------------------|------
 1062 19 11 18 52     7    7    7    3    7    4    7    13   19   28

1976                                     -------------------|------
  999 19 11 18 52     9    7    6    3    6    4    7    12   17   31

-----------------------------------------------------------------------
               ETH: BLACK    GRADE  2        READING
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                    -------|--------
  866 59 27 11  3     28   22   15   13   9    5    5    3    1    0

1973                     -----|----------
  851 54 29 11  6     23   23   16   12   9    5    5    3    3    1

1974                     ----|------------
  838 55 25 15  5     18   23   19   6    13   5    6    6    2    1

1975                     ------------|-------------
  792 45 25 18 12     15   18   16   7    14   6    8    7    5    4

1976                     -------|------------------
  742 46 23 17 14     14   21   18   5    11   6    6    8    6    5

LARGE CITY NORMS                -------------|-------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0   10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
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                NORTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETH: HEXAM     GRADE  2        READING
-----------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1972                           ---------|--------------
  224  30 30 23 17      9   14   14   13   10    8   11    8    7    6

1973                        ---------|---------------
  265  38 27 18 17     14   17   14   11    8    6    9    7    8    5

1974                      -------|----------------
  210  49 18 22 11     19   19   18    5    7    9    7    8    4    6

1975                      -----------|-----------------
  233  45 19 18 18     20   14   15    6    9    5    7    9    7    8

1976                   ----------|----------------------
  252  45 17 20 18     26   12   12    4    8    5    8   13    6    6

-----------------------------------------------------------------------
                ETH: TOTAL     GRADE  2        READING
-----------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1972                           --------------|----------------
 2458  29 21 20 29     12   12    9    9    8    7   10    8   12   13

1973                           --------------|----------------
 2293  30 22 19 29     12   13   10    9    8    7    9    7   12   14

1974                        -------------|-----------------
 2153  38 18 19 24     13   15   14    4   10    5    7   10    8   13

1975                          -----------------|----------------
 2114  32 17 18 33     11   12   11    5   10    4    7   10   13   17

1976                        -------------------|----------------
 2028  32 16 18 33     13   13   11    4    8    4    6   11   11   18

LARGE CITY NORMS                -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------
                  ETHI MEXAM      GRADE  4        READING
--------------------------------------------------------------------------
      QUARTILE                             PERCENTILES
FALL  DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3   4     +....+....+....+....+....+....+....+....+....+....+

1971                            --------|----------
 209   36 36 19  9       13   16   12   20   11    8    9    6    3    3

1972                          -------|----------
 210   41 36 14  9       20   14   16   17   10    7    6    4    4    1

1973                          ---------|----------
 194   41 33 19  7       19   15   14   14   11    6    8    6    4    2

1974                        -------|------------
 211   53 26 12  9       25   18   12   16    9    3    7    6    2    4

1975                        -------|------------
 233   51 26 17  6       25   18   11   15    9    6    8    4    3    2

1976                        -------|------------
 209   52 24 15  9       24   19   10   17    6    5    7    7    4    1

--------------------------------------------------------------------------
                  ETHI TOTAL      GRADE  4        READING
--------------------------------------------------------------------------
      QUARTILE                             PERCENTILES
FALL  DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3   4     +....+....+....+....+....+....+....+....+....+....+

1971                            ------------|----------------
3196   32 24 19 25       15   12   11   11    8    8    7    8   10   12

1972                           -----------|----------------
2649   35 25 20 20       15   13   14   11    7    8    7    8    8    8

1973                           ----------|----------------
2352   38 25 19 19       18   13   13   11    8    7    7    7    8    8

1974                          -----------|-----------------
2067   43 19 16 22       20   15   10   10    7    5    6   10    7   10

1975                          -----------|----------------
2016   41 20 19 20       19   14   12   11    6    6    8   10    6    8

1976                        ---------|------------------
1768   45 19 17 19       21   15   10   11    7    6    7   10    6    8

LARGE CITY NORMS                   -----------|-------------
       25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------------------------
                    ETHI ANGLO      GRADE  4          READING
-------------------------------------------------------------------------------------------
         QUARTILE                                          PERCENTILES
FALL    DISTRIBUTION                    0   10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4                     +....+....+....+....+....+....+....+....+....+....+

1971                                                       ------------|------------
 1883   15 22 26 37                        6    6    6   10    9   10    9   11   14   18

1972                                                     --------------|----------
 1531   17 21 29 33                        7    6    9    9    8   11   10   13   14   13

1973                                                  ---------------|------------
 1316   21 21 27 31                        9    7    9    8    9   10   10   11   12   14

1974                                                  ----------------|------------
 1161   25 19 21 35                       10    9    9    9    7    6    8   15   11   17

1975                                                  ----------------|----------
  994   21 18 25 35                       10    8    9    8    6    7   11   16   11   16

1976                                                ------------------|---------
  845   26 17 23 34                       12    9    7    8    7    6   10   16   10   15

-------------------------------------------------------------------------------------------
                    ETHI BLACK      GRADE  4          READING
-------------------------------------------------------------------------------------------
         QUARTILE                                          PERCENTILES
FALL    DISTRIBUTION                    0   10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4                     +....+....+....+....+....+....+....+....+....+....+

1971                                        ----|-------
  976   67 27  5  2                       33   24   19   13    5    3    1    1    1    0

1972                                         ----|-------
  880   65 28  6  1                       28   24   22   14    5    3    1    1    1    0

1973                                        -----|-------
  809   64 29  5  2                       32   22   20   13    5    3    2    1    1    1

1974                                      -----|---------
  658   72 18  7  3                       37   24   11   11    7    4    2    2    1    1

1975                                       ----|-----------
  738   67 20 10  3                       31   22   15   14    6    5    3    4    1    1

1976                                     ------|-----------
  670   67 19 11  3                       33   23   13   11    7    7    3    2    1    0

LARGE CITY NORMS                                    -------------|-------------
        25 25 25 25                       10   10   10   10   10   10   10   10   10   10

                                        +....+....+....+....+....+....+....+....+....+....+
                                        0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     --------------|----------
 1849  17 18 22 43      8    5    5    7    9    8    9   12   18   19

1972                                   --------------|-----------
 1545  16 21 25 38      5    7    8    8   10    9   10   12   16   16

1973                                    -------------|-----------
 1497  15 21 24 40      5    7    8    8    8    9   10   12   17   17

1974                                  --------------|-----------
 1339  18 21 27 34      9    6    6   10    7    7   14   13   13   15

1975                               -----------------|----------
 1170  21 19 26 34     10    8    8   10    5    8   11   14   13   14

1976                           ------------------|--------------
  993  28 18 23 31     18    8    5    9    6    6   12   10   12   15

------------------------------------------------------------------------
                ETHI BLACK     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ----|-----------
  253  66 21  9  4     40   19   11    9    8    5    4    2    2    0

1972                   ---|-------
  643  78 15  5  2     52   20   11    6    4    2    3    1    1    0

1973                   ---|----------
  709  74 18  6  2     51   18   10    9    5    3    2    2    1    1

1974                  -|------
  599  86 11  3  0     68   13    9    5    2    1    2    0    0    0

1975                  --|-------
  641  81 13  5  1     58   18   10    5    3    3    2    1    0    0

1976                  ---|---------
  709  75 17  7  1     55   16   10    7    3    4    3    1    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                     NORTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                ETH: MEXAM      GRADE  6        READING
--------------------------------------------------------------------------
       QUARTILE                        PERCENTILES
FALL  DISTRIBUTION     0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                          --------|-----------
 173  42 32 17  9       21   15   16   12   11    8    5    6    3    5

1972                         --------|------------
 179  46 29 13 12       20   20   16   12    7    5    7    4    6    3

1973                       ---------|-------------
 191  50 24 16 10       28   17    8   12    8    6    8    5    5    2

1974                      --------|--------------
 212  53 23 16  8       34   14   10    8    8    4    9    5    5    1

1975                      -------|---------------
 222  60 17 17  6       36   16   13    6    7    5    8    5    4    2

1976                     ------|-----------
 255  62 20 12  7       40   18   11    7    5    4    4    5    3    2

--------------------------------------------------------------------------
                ETH: TOTAL      GRADE  6        READING
--------------------------------------------------------------------------
       QUARTILE                        PERCENTILES
FALL  DISTRIBUTION     0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                                 --------------|--------------
2313  24 20 21 35       13    8    7    8    9    7    8   10   15   16

1972                          ---------------|----------------
2404  35 20 19 26       19   11    9    8    8    7    8    8   11   10

1973                          --------------|-----------------
2425  35 21 18 26       21   11    8    9    7    7    7    8   11   11

1974                      ---------------|------------------
2174  40 19 19 22       26    9    7    8    6    5   10    9    9    9

1975                      -------------|--------------------
2076  44 17 18 21       28   12    9    8    5    6    8    9    8    8

1976                     -----------|--------------------
2008  50 18 16 17       34   12    8    8    5    5    8    6    6    8

LARGE CITY NORMS                   -------------|-------------
      25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0   10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                     --------------|-----------
 2535  14 19 25 41      5    6    7    8    7    9   13   10   15   20

1972                                 --------------|------------
 1913  18 21 26 35      8    7    8    9    7    9   13   11   14   13

1973                                   -------------|-----------
 1817  15 21 28 36      7    6    7    8    8   10   12   13   14   15

1974                                  -------------|----------
 1534  16 24 28 33      6    7    7   12    7   11   11   13   13   13

1975                                  -------------|----------
 1535  17 21 31 31      6    8    8   10    7   14   13   10   13   12

1976                              --------------|------------
 1397  25 21 27 28     11   10    8   11    6   11   11   10   11   11

------------------------------------------------------------------------
                ETHI BLACK     GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   --|-----
  271  81 15  2  2     56   21    8    6    4    1    1    0    0    1

1972                   --|--------
  342  77 12  7  3     55   18    7    6    3    4    3    1    1    1

1973                   --|------
  541  79 13  5  2     58   17    8    6    3    3    2    1    1    0

1974                    ---|-------
  548  73 20  6  1     42   25   15    8    4    3    2    1    0    1

1975                    ---|-------
  594  73 21  4  2     42   24   15    9    4    2    2    1    1    0

1976                  ---|-----
  678  81 14  4  1     51   23   12    7    2    3    1    0    1    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                        NORTHEAST  SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                  ETH: MEXAM      GRADE  8        READING
------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        ------|-------------
   106 42 28 20 10     15   17   18   12    8    8   11    1    5    6

1972                      --------|-------------
   129 47 24 20  9     24   17   14    8    9   11    7    5    2    3

1973                       ----------|----------
   153 44 29 21  6     20   18    9   16   10   12    8    3    2    3

1974                       ----------|----------
   145 43 30 16 11     19   16   15   17    6    8    6    5    6    3

1975                    ------|-----------------
   172 55 19 17  8     35   16   10    9    3    8    6    5    5    1

1976                      -------|------------
   230 51 26 16  7     30   17   13   12    7    7    7    5    4    1

------------------------------------------------------------------------
                  ETH: TOTAL      GRADE  8        READING
------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                ---------------|--------------
  2993 21 20 23 36     10    8    8    8    7    8   11    9   13   18

1972                           ---------------|--------------
  2429 29 20 23 29     16    9    8    8    7    8   11   10   12   11

1973                         -----------------|-------------
  2545 31 20 23 27     19    9    8    8    7    8   10    9   11   11

1974                          -------------|--------------
  2272 32 23 22 23     15   12   10   11    7    9    8    9   10    9

1975                         ------------|---------------
  2359 35 21 23 21     17   13   10   10    6   10    9    7    9    8

1976                      ---------|-------------------
  2357 44 20 19 17     24   15   10   10    5    8    7    7    7    7

LARGE CITY NORMS                 -------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  9        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                 -------------|-----------
 2063  19 24 29 29      7    8    7    8   13    8   13   12   15   10

1972                                ------------|-----------
 2002  20 25 25 29      5    9   10    8   14    7   12   11   14   10

1973                                 ------------|----------
 1787  18 27 29 26      3    9    9    9   15    8   13   12   15    8

1974                                 -------------|---------
 1600  18 26 29 27      4   10    8    9   14    8   13   14   13    9

1975                                -------------|-----------
 1528  20 25 28 27      3   10    9    8   14    8   13   11   14    8

1976                               ------------|-------------
 1300  23 26 25 26      5   12    9    9   14    8   12    9   13    9

------------------------------------------------------------------------
                ETHI BLACK     GRADE  9        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ----|-------
  249  67 25  5  2     30   27   14   12   10    1    4    1    2    0

1972                       ---|-----
  333  73 23  4  0     23   34   22   13    5    2    2    0    0    0

1973                      -----|------
  292  65 24  7  4     25   31   14   11    8    4    3    1    2    1

1974                       ----|-------
  288  66 26  7  1     22   32   17   11    9    4    3    2    0    0

1975                       ----|------
  342  68 26  5  1     22   32   21   11    8    1    3    1    0    1

1976                      ----|-------
  869  70 23  6  1     26   31   17   11    8    3    2    1    1    0

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                         ETHI MEXAM      GRADE  9         READING
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        -------|-----------
  104  49 26 18  7     17   25   12   10   12    4   11    8    3    0

1972                         ----|--------
  123  52 34 10  4     15   24   20   18   10    3    2    5    2    1

1973                           -----|-------------
  131  38 34 20  8     10   21   14   13   15    7    5    9    2    4

1974                          ------|-------
  134  43 39 12  6     12   22   15   14   19    4    4    5    3    1

1975                         ------|----------
  154  48 31 16  5     10   28   14   12   14    8    6    1    3    3

1976                       -----|----------
  237  58 24 13  6     22   25   15   12    8    4    6    5    3    0

------------------------------------------------------------------------
                         ETHI TOTAL      GRADE  9         READING
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             --------------|------------
 2464  25 24 26 25      9   10    8    8   13    7   12   11   13    8

1972                            -----------|---------------
 2503  29 26 22 23      8   14   12    9   13    6   10    9   11    8

1973                             -----------|--------------
 2251  26 27 25 22      6   13   10   10   14    8   11   10   12    6

1974                             -----------|--------------
 2058  27 27 24 22      7   14   10   10   14    7   10   11   10    7

1975                            -----------|-------------
 2065  30 26 23 20      7   16   12    9   13    7   11    9   11    6

1976                         -------|----------------
 2454  44 25 17 15     14   20   13   10   11    6    8    6    8    5

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                      NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                  ETHI ANGLO      GRADE 12        READING
----------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971
                                             ------------|----------
 1517   11 19 33 37       4    4    5    9    8   14   12   13   13   18

1972
                                          ------------|----------
 1212   15 20 33 31       4    7    6    9   10   15   11   13   10   15

1973
                                       ------------|------------
 1324   19 27 29 25       6    8    8    9   13   13   11    9   11   11

1974
                                             ----------|-----------
 1410   13 18 32 37       4    6    6    7    9   15   11   12   12   19

1975
                                          ------------|------------
 1317   15 19 31 35       4    8    6    8    8   13   11   13   10   19

1976
                                         ----------|-----------
 1204   16 22 31 29       6    7    8    9    9   15   10   12    9   14

----------------------------------------------------------------------------
                  ETHI BLACK      GRADE 12        READING
----------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971
                           -----|----------
  153   67 16 12  5      35   27    7    8    6    7    5    3    2    1

1972
                          ---|-----
  145   83 12  6  0      50   28    6    8    3    3    2    1    0    0

1973
                          -----|---------
  239   69 17 10  5      43   18   13    5    6    4    4    1    1    4

1974
                           ------|---------
  256   62 23 11  4      37   17   13   11    8    4    5    4    1    1

1975
                            -----|---------
  301   61 24 14  2      32   23   14   10    5    9    4    2    1    0

1976
                           -----|----------
  366   66 19 12  4      37   21   10   10    7    6    5    2    2    1

LARGE CITY NORMS                    ------------|-------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
----------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETHI MEXAM      GRADE 12          READING
-------------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                    ----|--------------
 141   65 20 13  3      40   18   11    6    9    9    3    2    1    1

1972                      --------|-----------
  96   50 28 15  7      26   16   11   16    9    6    6    3    5    1

1973                     --------|----------
  80   50 33 10  8      31   15    9   13   15    3    4    5    4    3

1974                         -------|------------
  92   43 29 20  8      15   23   10   14   11    5   11    8    2    1

1975                     -------|-----------
 110   50 25 16  8      25   20   10   10   10    9    7    1    4    4

1976                         --------|-----------
 106   42 25 24  9      17   18   11   11    9   13    9    3    5    3

-------------------------------------------------------------------------
                ETHI TOTAL      GRADE 12          READING
-------------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                                  -------------|-----------
1870   21 19 30 31      10    7    6    9    8   13   11   11   11   15

1972                                -------------|------------
1472   24 20 29 27      10    9    7    9    9   13   10   11    9   13

1973                             ------------|-------------
1689   27 26 26 21      13   10    9    9   12   11   10    7    9   10

1974                                -------------|------------
1779   21 20 29 30       9    8    7    8    9   13   10   11   10   15

1975                             --------------|-------------
1756   26 20 27 27      11   11    8    8    8   12    9   10    8   15

1976                           -------------|------------
1715   30 21 26 22      13   11    8   10    9   12    9    9    7   11

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                          NORTHEAST  SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                ETHI ANGLO      GRADE  2          LANGUAGE
--------------------------------------------------------------------------
         QUARTILE                             PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                       -----------|-----
 1314  14 18 25 42     6    5    6    7    8    9   11   13   16   18

1973                                       -----------|------
 1150  16 18 24 42     7    5    6    6    8    9   11   12   13   22

1974                             ----------------|---------
 1088  29 20 15 36    11    5   13    7   14    5    5    9   17   15

1975                                  -------------|---------
 1060  25 16 14 45    10    6    9    6   11    6    4    8   18   23

1976                                  -------------|--------
  999  24 16 16 44     9    4   11    6   10    5    5   10   21   20

--------------------------------------------------------------------------
                ETHI BLACK      GRADE  2          LANGUAGE
--------------------------------------------------------------------------
         QUARTILE                             PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                   ----|------
  858  74 19  6  1    49   19   12    7    7    2    3    1    0    0

1973                   -----|------
  851  72 18  7  2    48   20   12    8    5    4    3    1    1    1

1974                      -----|--------
  838  64 22  7  6    30   10   24    9   14    3    3    4    4    1

1975                      -------|--------
  792  57 22  9 12    29   10   18    9   13    3    3    5    5    4

1976                      -------|--------
  740  57 22  9 13    29   11   16    7   14    3    3    5    5    6

LARGE CITY NORMS                -----------|-----------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                  NORTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                       ----------|------------
  225  47 26 19  8    24   18    8   13    9    6   11    7    2    1

1973                     ---------|-----------
  265  51 27 13  9    29   17   15    8    8    5    6    5    3    3

1974                        ------|-----------
  210  53 26 10 11    25    9   20    7   19    4    2    6    6    2

1975                        -----|------------
  234  53 24  7 16    18   13   22    8   16    2    1    5    8    7

1976                        ------|----------------
  258  51 21 14 14    24    8   19    7   14    5    5    6    7    6

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                       ---------------|----------------
 2441  39 19 17 24    23   11    8    7    8    6    8    8    9   10

1973                       -------------|------------------
 2292  41 19 17 23    23   12    9    7    7    6    7    7    7   12

1974                        -----------|------------------
 2153  45 22 11 22    20    8   18    7   14    4    4    7   11    8

1975                        -------------|---------------------
 2113  40 20 11 29    18    8   14    7   12    4    3    7   12   14

1976                        -------------|---------------------
 2032  40 19 13 29    18    7   14    7   12    4    4    7   13   13

LARGE CITY NORMS                  -------------|------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    NORTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: ANGLO      GRADE  4         LANGUAGE
------------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               -----------|------------
 1883 19 28 27 26      7    9    9   13   10   11   12   10    9   10

1972                             ----------|--------------
 1531 24 29 24 24      9   10   10   14   10   11   10   10    9    8

1973                            -----------|--------------
 1316 27 25 23 25     10   11    9   13    8   10   10    9   10   10

1974                            ----------------|----------
 1152 27 18 25 30     12    8    9    8    8   10   10   12   12   12

1975                              --------------|----------
  981 25 19 25 31     10    8   11   10    6   10    9   13   12   11

1976                          ----------------|------------
  828 29 18 27 27     14    9    7    7    9   12   10   10   11   11

------------------------------------------------------------------------
                ETH: BLACK      GRADE  4         LANGUAGE
------------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|-------
  976 74 20  5  1     35   30   15   11    4    3    2    0    0    0

1972                    -----|----
  880 71 23  5  1     28   32   18   10    5    4    1    1    0    0

1973                    ---|--------
  809 70 23  6  1     30   32   16   12    4    3    2    1    0    0

1974                  ---|----------
  645 75 14  8  3     45   21   11    8    4    4    3    2    1    1

1975                  -----|-----------
  718 69 17  8  5     41   20   11    8    6    5    3    3    2    1

1976                  ---|------------
  662 70 19  8  4     47   16   11   11    5    4    3    3    1    0

LARGE CITY NORMS                ------------|-------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                 NORTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                 ETH: MEXAM      GRADE  4       LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                      ---------|--------
  209  45 32 15  9    18   19   13   19    8    6    7    6    3    1

1972                     -------|----------
  210  53 28 12  7    21   22   18   10   10    7    4    5    3    0

1973                       -------|---------
  194  45 34 15  6    16   21   16   17    9    8    5    5    2    2

1974                    ------|----------------
  209  55 16 18 11    30   18   10    9    5   10    4    7    6    2

1975                   ---------|--------------
  230  50 23 19  8    29   14   10   11   10   13    3    6    3    1

1976                    --------|------------
  206  53 22 16  8    28   17   11   11    8    7    6    6    4    1

-----------------------------------------------------------------------
                 ETH: TOTAL      GRADE  4       LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                       ----------|---------------
 3196  37 26 19 17    16   16   11   12    8    8    8    7    6    7

1972                       --------|--------------
 2649  42 27 17 15    16   18   13   13    8    8    6    7    6    5

1973                      ---------|---------------
 2352  43 25 17 15    17   19   12   13    7    7    7    6    6    6

1974                     -----------|-----------------
 2043  45 17 18 20    24   13    9    9    7    8    7    8    8    7

1975                    ------------|----------------
 1979  44 19 18 19    23   13   11    9    7    8    6    9    7    6

1976                   -------------|---------------
 1739  47 19 18 16    28   12    9    9    7    9    7    7    6    5

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                     NORTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETHI ANGLO     GRADE  6        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
   N   1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                 ---------------|-----------
 1849 21 19 22 39     10    8    6    7    9    7   10   12   15   17

1972                                ---------------|----------
 1545 20 21 24 35      8    9    7    7   10    8   10   11   14   15

1973                               -------------|------------
 1497 20 23 23 33      7    9    8    8   11    9   10   10   13   14

1974                               -------------|-----------
 1320 23 20 28 29      9    9    8    6   10    9   11   14   13   10

1975                             --------------|-----------
 1162 24 21 28 27     10   10    8    6   12    9   12   13   13    8

1976                        -----------------|-------------
  960 30 20 25 25     17   10    7    5   11    9   10   12   12    9

-----------------------------------------------------------------------
                ETHI BLACK     GRADE  6        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
   N   1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|----------
  253 67 19 10  4     42   19   10    5    9    6    4    2    2    0

1972                  --|--------
  643 77 15  6  3     54   17    9    6    5    3    2    2    2    0

1973                  ---|--------
  709 75 16  6  4     50   20    9    8    5    3    2    2    2    1

1974                 -|--------
  586 80 14  6  1     63   14    6    5    6    3    2    1    0    0

1975                 -|-----------
  634 77 13  9  1     62   11    6    3    6    4    4    2    0    0

1976                 --|----------
  705 76 13 10  2     59   14    6    5    5    4    4    2    1    1

LARGE CITY NORMS                -------------|-------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0   10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-----------------------------------------------------------------------
                ETHI MEXAM     GRADE  6        LANGUAGE
-----------------------------------------------------------------------
      QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      --------|-------------
 173  43 31 16  9     18   17   16   12   12    6    7    5    7    1

1972                     -------|-----------
 179  51 26 12 11     22   22   12   11   10    4    7    6    4    2

1973                    -------|--------------
 191  54 23 13 10     29   19   11    6   12    5    5    5    6    3

1974                    -------|----------------
 207  54 19 20  8     30   19    9    7    8   10    6    6    4    2

1975                 --------|---------------
 218  56 21 19  5     36   16    9    6   10    9    5    6    1    1

1976                 ------|----------------
 249  59 20 13  8     39   16    9    6   10    6    5    4    4    2

-----------------------------------------------------------------------
                ETHI TOTAL     GRADE  6        LANGUAGE
-----------------------------------------------------------------------
      QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ----------------|--------------
2313  28 20 20 32     14   10    7    7   10    7    9   10   13   14

1972                      ---------------|----------------
2404  38 20 18 24     21   12    8    7    9    7    8    8   10   10

1973                      -------------|-----------------
2425  39 21 17 23     2[illegible]   13    8    8    9    7    7    7    9    9

1974                    ---------------|---------------
2137  42 18 21 19     26   11    8    6    9    8    8   10    9    6

1975                  ---------------|---------------
2057  44 19 21 16     29   11    8    5   10    7    9    9    8    5

1976                 ----------|-------------------
1964  50 17 18 14     35   12    7    5    9    7    7    7    7    5

LARGE CITY NORMS                ------------|-------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0   10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                       NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                   ETH: ANGLO      GRADE  8        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                                 -------------|--------------
  2535   19 21 23 37    7    8   10    7    9   10    9   10   13   18

1972                                -------------|------------
  1913   22 23 25 31   11    7    8    7   12   10   10   10   12   14

1973                                ------------|-------------
  1817   22 25 22 31    9    7    9    9   12    7    9   11   13   12

1974                              --------------|-----------
  1439   23 24 27 26   10    8    8   11   10   11   12   10   11    9

1975                             ------------|-----------
  1530   25 25 27 22   11   10    7   10   12   12   11   10    9    7

1976                            --------------|-----------
  1362   27 22 27 24   15    8    8    9    9   12   10   11   10    7

------------------------------------------------------------------------
                   ETH: BLACK      GRADE  8        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                  ---|-------
   271   78 15  5  2   55   17   10    6    5    2    2    1    1    0

1972                  ---|---------
   342   73 17  7  4   50   16   13    8    4    3    3    2    1    1

1973                  ---|--------
   541   76 16  5  3   49   20   11    6    6    3    2    2    2    1

1974                  ---|-------
   547   79 14  6  1   56   17    9    6    5    4    1    1    0    0

1975                  ---|-------
   585   78 16  5  1   59   14    9    8    4    2    2    1    1    0

1976                  --|---------
   643   77 16  5  1   63   11    7    7    6    3    2    1    1    0

LARGE CITY NORMS                 ------------|-------------
         25 25 25 25   10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-----------------------------------------------------------------------
                   ETHI MEXAM     GRADE  8        LANGUAGE
-----------------------------------------------------------------------
      QUARTILE                       PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ---------|-------------
  106  43 25 19 12     23    8   24    5    9   10    6    5    5    6

1972                      ---------|------------
  129  43 26 23  8     23   12   16    9   10    8    9    7    5    2

1973                       ----------|-------
  153  42 33 15 10     16   17   16   12   14    7    7    5    4    3

1974                     ---------|----------
  147  46 27 20  7     23   16   12   14    7    9    7    7    2    1

1975                   --------|----------
  170  54 26 12  8     32   17    9   15    8    5    3    8    4    0

1976                  -----------|----------
  226  50 27 19  4     30   15    7   18    8    8    7    5    3    0

-----------------------------------------------------------------------
                   ETHI TOTAL     GRADE  8        LANGUAGE
-----------------------------------------------------------------------
      QUARTILE                       PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                            ---------------|------------
 2993  26 21 21 32     12    9   10    7    9    9    8    9   12   16

1972                         ---------------|-------------
 2429  30 22 22 26     17    9    9    8   10    9    9    9   10   12

1973                        -------------|---------------
 2545  35 24 18 24     18   11   10    9   11    6    7    9   10    9

1974                     --------------|-------------
 2169  39 22 21 18     23   11    9   10    9    9    9    7    8    6

1975                     ------------|--------------
 2342  41 23 20 15     25   12    8   10   10    9    8    7    7    5

1976                  -------------|--------------
 2283  44 21 20 15     30   10    7   10    8    9    7    8    7    5

LARGE CITY NORMS                ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                    ETHI ANGLO      GRADE  9        LANGUAGE
----------------------------------------------------------------------------
            QUARTILE                          PERCENTILES
FALL     DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                   ---------------|-----------
  2063   22 18 25 35       11    6    7   10    5    9    8   15   16   11

1972                                  --------------|-------------
  2002   24 19 23 34        9    9    9   11    5   10    8   12   16   11

1973                                  --------------|------------
  1734   22 21 24 33        8    8    9   12    5   10    9   12   16   10

1974                                  --------------|------------
  1621   23 21 25 31        8    8    9   12    5   10    9   13   15   10

1975                                 -------------|-------------
  1521   24 22 24 30        8    9   10   14    5    9    9   14   14    9

1976                              ---------------|-------------
  1290   27 22 23 28       11    9   11   13    5   10    7   12   12   10

----------------------------------------------------------------------------
                    ETHI BLACK      GRADE  9        LANGUAGE
----------------------------------------------------------------------------
            QUARTILE                          PERCENTILES
FALL     DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|-------
   249   67 19  7  6       40   18   14   11    4    3    2    6    2    0

1972                       -----|-------
   333   65 25  9  1       35   22   15   16    2    5    3    2    0    0

1973                       ------|-------
   290   62 25  9  5       28   19   20   15    3    4    3    2    2    1

1974                       -----|-------
   284   69 18  9  4       33   20   21   10    2    4    3    5    1    0

1975                       -----|--------
   328   62 27  9  2       34   18   17   15    5    6    3    1    1    1

1976                       ------|---------
   848   61 25 10  4       33   17   17   15    5    6    3    3    2    0

LARGE CITY NORMS                     -------------|-------------
         25 25 25 25       10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                 ETHI MEXAM     GRADE  9       LANGUAGE
------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                          -------|----------------
  104  42 23 20 14     18   12   15   18    2    9    8    5   12    2

1972                      ------|---------------
  123  54 20 14 12     26   18   17    9    4    7    5    6    5    3

1973                           --------|------------
  128  35 32 20 13     14   13   13   18   10    8    7    9    7    2

1974                          ------|------------
  134  44 31 18  7     22   13   15   23    1    7    7    7    2    1

1975                          ------|--------
  153  49 31 14  6     18   20   16   20    6    7    4    5    1    3

1976                      ------|--------------
  232  53 22 16  9     26   19   16   11    3    9    4    6    4    1

------------------------------------------------------------------------
                 ETHI TOTAL     GRADE  9       LANGUAGE
------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                             ---------------|--------------
 2464  28 18 23 31     14    8    8   11    5    9    8   14   14    9

1972                            --------------|--------------
 2503  32 20 21 28     13   11   11   12    4    9    7   10   13    9

1973                             -------------|---------------
 2193  28 22 22 28     12   10   10   13    5    9    8   11   14    8

1974                            --------------|--------------
 2075  31 21 22 26     13   10   11   13    5    9    8   12   12    8

1975                            ----------|----------------
 2043  32 24 21 23     12   12   11   15    5    8    8   11   11    7

1976                          -------|------------------
 2418  42 23 17 18     20   13   13   14    5    8    5    9    8    6

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                    ETHI ANGLO      GRADE 12        LANGUAGE
----------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
 FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

 1971                                   --------------|-----------
 1517   18 21 26 35        7    8    6    9    9   10   12   11   14   15

 1972                                  ------------|-------------
 1212   19 24 26 31        5    9    7   12    9   11   12    9   11   14

 1973                                ------------|------------
 1322   21 29 25 24       10    9   10   12   10   10   11    8   10    9

 1974                                   --------------|-----------
 1408   18 21 27 34        6    8    7   10    8   11   12   11   13   14

 1975                                  -------------|-------------
 1315   20 22 24 34        7    8    8   10    9    9   11   11   13   15

 1976                                -------------|--------------
 1206   23 25 23 29        8    9    8   12   10    8   12    8   11   13

----------------------------------------------------------------------------
                    ETHI BLACK      GRADE 12        LANGUAGE
----------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
 FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

 1971                     ------|------------
  153   62 20 12  6       37   22    8    8    7    7    3    5    3    1

 1972                    ----|-------
  145   79 12  8  1       49   23    9    8    3    4    4    0    1    0

 1973                    -----|-------------
  237   62 22 11  5       43   14   12    8    6    5    5    3    2    2

 1974                     -----|---------------
  256   59 23 13  6       33   18   12    8   10    5    6    4    3    1

 1975                      -------|-----------
  300   56 26 13  5       33   16   11   13    9    7    4    3    2    1

 1976                     -----|-------------
  365   62 20 11  7       38   17   11    9    7    4    6    1    5    1

 LARGE CITY NORMS                   -------------|-------------
        25 25 25 25       10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
----------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                 ETHI HEXAM     GRADE 12        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     -------|------------
  141  57 22 13  7     29   20   13   10    8    4    6    7    3    1

1972                       -----|----------------
   96  54 18 22  6     20   25   14   10    3   11    9    4    1    2

1973                     ----------|---------
   81  47 30 14 10     31   12   10   15    9   10    4    4    6    0

1974                        ------------|---------
   92  39 24 23 14     15   15   12   11   10   12    9    9    5    2

1975                      -------|------------
  108  51 26 16  7     24   20   12    9   11    4    8    5    3    4

1976                         ---------|------------
  108  42 27 23  8     16   12   19   15    7   10    6    9    6    0

------------------------------------------------------------------------
                 ETHI TOTAL     GRADE 12        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             ---------------|------------
 1870  25 21 24 30     11   10    7    9    8    9   11   10   12   12

1972                            ---------------|------------
 1472  27 23 24 26     10   12    8   12    8   10   11    8   10   12

1973                           ------------|-------------
 1686  29 28 22 21     15   10   10   11   10   10   10    7    9    8

1974                             ---------------|------------
 1777  25 21 25 29     10   10    8   10    9   10   11   10   12   11

1975                            --------------|-------------
 1751  28 23 22 27     13   10    9   10    9    9   10    9   10   12

1976                         --------------|--------------
 1717  33 24 21 23     15   11   10   12    9    8   10    7    9   10

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2       MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                    -------------|---------
 1319  16 21 33 30      6    5   10   10    7   13   12   13   11   14

1973                                     ------------|----------
 1150  15 22 31 32      5    5    8   11    8   13   12   13   12   14

1974                                -------------|---------
 1088  17 28 34 21     11    5    7   10   13   13   13   10   10    8

1975                                    ----------|---------
 1057  13 27 35 25      7    5    7    9   13   11   14   12   14    8

1976                                    ----------|-----------
  998  14 23 37 26      7    6    8    7   10   13   14   12   14   10

------------------------------------------------------------------------
                ETHI BLACK     GRADE  2       MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                    ----|---------
  876  67 21 10  2     38   19   15   11    5    6    3    1    1    0

1973                    ------|---------
  851  67 18 12  4     38   16   18    7    5    7    4    2    2    1

1974                     ------|----------
  838  52 33 13  1     34   15   12   13   11    7    5    2    1    0

1975                     ---------|----------
  790  47 33 16  4     27   15   16   13    8    7    6    4    3    1

1976                         -------|-----------
  737  36 36 24  4     21   13   13   13   12   11    9    4    2    1

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETH: MEXAM     GRADE  2      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          -------|----------------
  225  36 27 27 10     12   13   18   14    6   11   12    6    6    2

1973                         ----------|-----------
  265  42 24 24 10     17   15   14   11 [illegible] 11    6   10    4    3

1974                         -------|-----------
  210  35 38 20  7     18   14   16   13   12    8    9    4    4    2

1975                         ----------|----------
  231  34 36 24  6     13   16   14   16   10    9   12    4    4    2

1976                     --------------|-------
  258  37 36 19  7     25    8   13   16   12   10    5    6    4    2

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  2      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                         ------------|--------------
 2465  36 22 24 18     18   11   12   11    6   10    9    8    7    8

1973                         ------------|---------------
 2292  37 21 23 19     19   10   12    9    7   10    8    9    7    8

1974                         ----------|-------------
 2153  33 31 24 12     20   10   10   11   12   10   10    6    6    4

1975                         ------------|-------------
 2105  28 30 26 15     15   10   11   12   11    9   11    8    9    5

1976                           -------------|---------
 2027  25 30 30 15     14    8   11   10   11   12   11    8    8    5

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                       NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO      GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                            -----------|-------------
  1883  26 28 25 21     8   10   13   13   10    7   12   10    9    7

1972                           ----------|------------
  1531  29 30 24 17    10   10   15   13   12   10    9    9    8    5

1973                           ----------|-------------
  1316  28 31 24 17    11   10   12   14   11    8   11   10    9    4

1974                            ----------------|----------
  1153  27 21 27 25    11   10    8   13    6    8   12    9   14    9

1975                            --------------|----------
   983  27 22 30 20    11   12    7   13    7   10   13    8   11    8

1976                       -------------|---------------
   833  35 21 25 18    21   11    6   13    6    9   11    6   11    7

-------------------------------------------------------------------------
                ETH: BLACK      GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                   ----|----
   976  78 18  3  1    37   28   19    9    3    1    2    1    0    0

1972                    ---|-----
   880  76 22  2  0    35   28   20   10    3    1    1    0    0    0

1973                    ---|------
   809  77 19  3  1    36   27   19   10    3    1    1    1    0    0

1974                -|---
   652  86  9  4  1    69   14    4    6    3    2    2    0    1    0

1975                --|----------
   716  78 14  7  1    59   15    5   10    3    3    2    2    1    0

1976                --|-------
   658  80 12  6  1    61   14    5    9    3    3    2    1    1    0

LARGE CITY NORMS                -------------|-------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                    NORTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                      ETHI MEXAM     GRADE  4      MATHEMATICS
----------------------------------------------------------------------------
      QUARTILE                             PERCENTILES
FALL  DISTRIBUTION      0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                          ------|---------
 209  50 30 13  7         22   17   19   17    6    5    7    4    3    1

1972                          -----|----------
 210  54 32  8  6         20   20   20   14   12    5    1    4    2    2

1973                           ------|--------
 194  47 37 10  6         18   13   25   18   11    5    4    3    3    2

1974                      ---|---------------
 202  64 16 12  7         44   15    7    9    5    3    7    4    3    1

1975                       -----|------------
 229  60 24 11  5         34   20    9   16    5    4    4    3    3    1

1976                      -----|-------------
 201  64 16 11  8         38   20    7   11    4    5    4    3    4    3

----------------------------------------------------------------------------
                      ETHI TOTAL     GRADE  4      MATHEMATICS
----------------------------------------------------------------------------
      QUARTILE                             PERCENTILES
FALL  DISTRIBUTION      0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                           --------|----------------
3196  43 25 17 15         18   16   15   12    7    5    9    7    6    5

1972                          --------|------------
2649  47 27 15 11         19   17   17   12    9    7    6    6    5    3

1973                          --------|------------
2352  46 27 15 11         20   16   16   13    9    5    7    6    5    2

1974                       ---------|-------------------
2044  50 16 18 15         33   12    7   10    5    6    8    6    9    5

1975                      -----------|---------------
1979  49 20 20 11         31   14    6   12    5    7    8    5    6    4

1976                     ------|--------------------
1737  56 17 16 11         38   13    6   11    5    6    7    4    7    4

LARGE CITY NORMS                    ------------|------------
      25 25 25 25         10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------------
```

```
                  NORTHEAST  SUBDISTRICT
       INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETH: ANGLO      GRADE  6      MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                               --------------|-----------
 1849  22 25 26 27    10    8    7   10   11    9    9   14   12   10

1972                               -------------|-----------
 1545  21 25 30 24     8    8   10    8   12   11   10   14   10    8

1973                               -------------|------------
 1497  21 26 28 25     8    8   10    9   12   10    9   13   12    9

1974                             ------------|-------------
 1325  24 25 27 23    10   12    8    9   11   12   10   10   10    8

1975                           ----------------|-----------
 1151  25 21 30 24    12   10    7    8    9   14   11   11   10    8

1976                      ---------------|---------------
  995  36 21 22 21    22   11    9    8    8    9    9    8   11    6

-----------------------------------------------------------------------
                ETH: BLACK      GRADE  6      MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                  ----|-----------
  253  70 19  9  2    43   20   10    8    8    5    4    1    1    0

1972                 ---|------
  643  80 14  4  1    55   18   11    6    4    2    2    1    0    0

1973                 --|-------
  709  78 15  5  1    54   17   11    6    5    2    2    1    1    0

1974                |----
  581  91  8  1  0    77   10    6    3    2    1    0    0    0    0

1975                |----
  636  89  8  3  0    75   11    6    2    3    1    1    1    0    0

1976                |----
  707  86  9  4  1    75    9    4    4    2    3    1    0    1    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                    NORTHEAST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETHI MEXAM      GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       -------|-----------
  173  53 24 16  7      23   21   15   11    8    8    3    6    3    2

1972                       ----------|-----------
  179  47 28 17  7      23   16   15   12    9    5    8    8    2    2

1973                      ----------|---------
  191  50 30 15  5      27   16   13   15    9    7    5    6    1    1

1974                    ---------|--------------
  204  54 23 15  8      36   15    8    8    9    8    4    6    4    1

1975                    ------|--------------
  218  61 22 14  4      40   15   10   10    7    7    3    5    1    1

1976                  ---|-----------
  256  69 17 10  4      53   13   11    5    3    4    5    1    2    2

-------------------------------------------------------------------------
                 ETHI TOTAL      GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                           --------------|--------------
 2313  30 24 23 23      14   11    8   10   10    8    8   12   10    8

1972                       -------------|--------------
 2404  34 22 22 16      22   11   11    8   10    8    8   10    7    6

1973                       ------------|---------------
 2425  40 23 20 16      23   11   11    9   10    8    7    9    8    6

1974                    -------------|-----------------
 2134  45 20 19 16      31   11    8    7    9    9    7    7    7    5

1975                    -----------|-----------------
 2048  49 17 20 14      35   11    7    6    7    9    7    7    6    5

1976                  ------|------------------
 2009  58 16 14 12      45   11    8    6    5    6    6    4    6    3

LARGE CITY NORMS                  ------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    NORTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETHI ANGLO     GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                              -------------|-------------
 2535  23 23 24 29     8   10   10    9   10   10   10   11   11   11

1972                            ------------|--------------
 1913  27 25 24 25    12   10   10    9   10   10   10   10   10    8

1973                           ------------|--------------
 1817  30 23 23 24    12   12   11    9    9   10    9   10    9    8

1974                               ----------|-----------
 1527  19 28 28 24     6    9    9   13   11   13   11   10   10    8

1975                             -----------|-------------
 1523  24 27 28 22     9   10   10   13    9   12   10   10    9    7

1976                          ------------|-------------
 1364  29 25 26 19    15   10    8   12   10   11   10   10    9    6

-----------------------------------------------------------------------
                ETHI BLACK     GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                  --|------
  271  84 14  2  1    58   20   12    3    4    2    0    0    0    0

1972                  --|-------
  342  80 14  4  2    56   19   10    6    4    2    1    1    1    1

1973                  --|-----
  541  84 12  4  1    60   20   10    4    3    2    2    0    0    0

1974                  --|--------
  551  76 19  4  1    52   18   12    9    5    3    1    0    0    0

1975                  --|------
  589  82 12  5  1    55   20   10    6    3    3    2    1    1    0

1976                --|-----
  651  86 11  2  1    65   16    8    6    3    2    0    0    0    0

LARGE CITY NORMS                -------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                          NORTHEAST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                   ETHI MEXAM      GRADE  8       MATHEMATICS
----------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                        --------|------------------
  106    51 21 13 15      27   20    4   13    8    5    3   10    6    5

1972                         ---------|----------
  129    46 30 14 10      23   19   16    8   11    7    5    3    6    2

1973                         ----|--------------
  153    55 23 15  7      25   26   12    8    7    7    6    7    2    1

1974                           ---------|---------
  149    42 32 20  7      19   17    9   13   15   11    8    2    4    2

1975                        -----|----------
  172    61 20 13  5      28   28   10   10    6    8    4    4    2    1

1976                     ----------|----------
  230    55 24 17  3      37   12   11   11    8   10    7    2    2    1

----------------------------------------------------------------------------
                   ETHI TOTAL      GRADE  8       MATHEMATICS
----------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                              -------------|---------------
 2993    30 22 22 26      14   11   10    8    9    9    9   10   10   10

1972                           -------------|---------------
 2429    35 24 20 21      19   12   10    9    9    9    8    9    9    7

1973                          ----------|----------------
 2545    43 21 19 18      23   14   11    8    8    8    8    8    7    6

1974                            -----------|--------------
 2269    35 26 22 17      18   12   10   12   10   10    9    7    7    6

1975                        -------------|--------------
 2336    42 23 21 15      22   14   10   11    7    9    8    7    6    5

1976                      -----------|----------------
 2299    48 21 18 12      31   12    8   10    7    8    7    7    5    4

LARGE CITY NORMS                    -------------|-------------
         25 25 25 25      10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO     GRADE  9      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                    -------|-----------
 2063  16 26 33 25      4    6   13    9   10   16   12    8   15    7

1972                                    -------|-----------
 2002  16 28 35 21      3    7   15   10    9   17   13    8   13    5

1973                                    -------|-----------
 1796  15 28 34 23      2    6   15    9   10   17   12   10   13    5

1974                                    -------|-----------
 1622  14 29 36 21      1    7   14   11   11   19   13    8   13    5

1975                                -----------|---------
 1533  16 30 37 17      2    7   17   10   10   19   14    8   10    3

1976                                -------|-----------
 1305  21 32 32 16      2   11   19   10   10   17   11    7   10    3

-------------------------------------------------------------------------
                ETHI BLACK     GRADE  9      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                        ------------|---
  249  35 45 18  2     10   15   24   19   12   12    4    2    2    0

1972                            ----|-------
  333  38 43 19  0      7   16   30   16   12   12    6    1    0    0

1973                            --------|-------
  300  34 40 24  2      4   16   28   13   13   16    7    2    1    1

1974                            --------|-------
  289  33 42 25  1      4   15   29   14   13   17    6    2    1    0

1975                            --------|-------
  335  27 48 24  1      1   14   27   16   16   16    6    2    0    1

1976                            ----|-------
  877  36 42 21  1      4   17   30   14   12   14    7    2    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                        NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
              ETHI MEXAM     GRADE  9     MATHEMATICS
------------------------------------------------------------------------
       QUARTILE                     PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                            --------|-------
 104   27 39 27  7      6   11   23   13   14   14   11    2    6    1

1972                            --------|-------
 123   27 42 22  9      6   13   24   13   14   15    5    4    7    1

1973                            --------|----------
 132   29 37 27  7      2   14   22   20    8   15    9    5    4    2

1974                            --------|-------
 133   32 38 26  4      5   11   31   11   13   15    9    2    3    1

1975                            --------|-------
 155   32 41 24  4      5   13   28   15   11   14    8    3    1    1

1976                            --------|-------
 239   35 36 26  3      4   21   24   14    8   18    7    2    2    0

------------------------------------------------------------------------
              ETHI TOTAL     GRADE  9     MATHEMATICS
------------------------------------------------------------------------
       QUARTILE                     PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                -----------|-----------
2464   19 28 32 21      5    7   15   10   10   16   11    7   13    6

1972                                -------|-------------
2503   20 31 32 17      4    9   17   11   10   17   11    7   11    4

1973                                -----------|---------
2269   18 30 32 19      2    8   17   10   11   16   12    8   11    4

1974                                -----------|---------
2082   18 31 34 17      2    8   17   11   11   18   12    7   10    4

1975                               --------|-----------
2064   19 34 34 13      2    8   20   12   11   18   12    6    8    3

1976                           ---------|----------
2469   28 36 27  9      3   14   23   12   11   16    9    4    6    2

LARGE CITY NORMS                 -------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                     NORTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

=========================================================================
             ETH: ANGLO        GRADE 12        MATHEMATICS
=========================================================================
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                         ===========|=======
1517  15 26 31 28       5     5     9    11    11     9    12    16    13    10

1972                                   ============|=========
1212  16 27 31 27       4     7    10    12    10    10    11    16    12     9

1973                              ============|===========
1322  21 30 31 18       6     9    10    12    14     9    16    10     7     7

1974                                        =========|==========
1409  15 25 31 29       3     7    10    10    10    10    11    16    13    10

1975                                   ============|=========
1317  17 28 29 26       3     7    11    13    10     9    10    14    13     9

1976                                   =========|===========
1214  17 30 28 25       5     9    10    12    12     8    12    14    11     8

=========================================================================
             ETH: BLACK        GRADE 12        MATHEMATICS
=========================================================================
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       =====|=========
 153  52 40  5  3      20    22    23    18    10     3     1     2     2     1

1972                       =====|======
 145  59 36  5  1      18    29    22    19     6     4     0     1     0     0

1973                    ====|==========
 239  59 28 10  3      27    24    17    10     9     3     6     2     1     1

1974                          ===|=========
 256  52 35  8  4      13    23    26    16     6     2     4     4     2     1

1975                          ======|======
 301  45 46  8  1      10    20    29    21    11     4     2     2     0     0

1976                       =====|=========
 370  53 34 10  3      18    23    25    15     7     5     3     4     2     0

LARGE CITY NORMS                   ===========|============
       25 25 25 25     10    10    10    10    10    10    10    10    10    10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
=========================================================================
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETH: MEXAM     GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    --------|---------
  141  50 37 10  3     26   17   18   17    9    4    1    7    1    0

1972                         ------|------
   96  43 40 13  5      9   21   26   19    7    6    5    4    1    1

1973                       ----|-----------
   81  56 31  7  6     23   22   12   14   15    1    4    6    1    1

1974                         ------|-----------
   92  46 32 11 12     11   24   24   13    5    8    2    4    5    3

1975                         ------|-----------
  109  39 41 16  5     18    7   26   16   13    7    5    6    3    0

1976                         ---------|-----
  109  34 44 15  7     10   18   17   25    7    6    5    8    3    1

-------------------------------------------------------------------------
                ETH: TOTAL     GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               -------------|----------
 1870  21 28 27 24      8    8   10   12   11    8   10   14   11    8

1972                               -----------|------------
 1472  21 29 27 23      5   10   12   14    9    9   10   14   10    8

1973                           -------------|---------
 1688  28 30 27 15     10   12   11   11   13    8   14    8    6    6

1974                               -------------|----------
 1778  22 27 27 24      5   11   13   11    9    9   10   13   11    8

1975                               --------|--------------
 1755  23 32 24 20      6   10   15   14   11    8    8   12   10    7

1976                           ------------|-------------
 1733  26 32 23 19      8   12   14   13   10    7   10   11    9    6

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         NORTHEAST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH1 ANGLO      GRADE  9      SOCIAL STUDIES
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                   ----------|-----------
 2063   24 26 29 21      8    11    13     6    13    12    13     7    10     8

1972                                   ----------|----------
 2002   23 27 30 20      6    11    11     8    14    12    14     7    11     7

1973                                   ----------|----------
 1811   22 28 30 20      5    12    12     7    14    13    14     6    11     5

1974                                   ----------|----------
 1691   25 26 31 18      7    11    12     6    14    13    15     7    10     5

1975                                   ----------|----------
 1555   23 28 30 20      6    11    13     7    14    11    14     7    10     6

1976                                -------------|---------
 1306   26 28 28 18      7    13    14     7    14    11    13     6     9     6

-------------------------------------------------------------------------
                ETH1 BLACK      GRADE  9      SOCIAL STUDIES
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         -----|-------
  249   61 28 10  2     27    27    15     8    12     6     3     1     1     0

1972                          ------|-----
  333   59 31 10  1     22    27    21     9    11     4     5     1     0     0

1973                          ------|----------
  304   54 33 11  2     15    30    21     9    13     6     4     0     1     1

1974                            ----|----------
  301   53 33 11  3     17    26    22     8    13     7     4     2     1     0

1975                          ------|-----
  353   59 31  9  1     19    27    23     7    13     5     4     1     0     1

1976                          ------|-----
  891   56 31 11  1     18    28    21     8    12     7     4     1     1     0

LARGE CITY NORMS                     -----------|------------
        25 25 25 25     10    10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10    20    30    40    50    60    70    80    90   100
-------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI MEXAM     GRADE  9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         ----|-------------
  104  50 25 21  4     19   14   23    6   13   12   10    2    2    0

1972                         ----|-------------
  123  50 28 15  6     15   28   19    4   13   11    5    3    1    2

1973                         ------|-------------
  133  47 26 20  8     10   22   20    6   14   11    8    3    5    2

1974                         ------|--------
  138  48 33 17  3     14   22   25   11    9   10    6    1    1    1

1975                         ---------|--------
  155  37 38 18  6      7   26   15   11   17    9    9    3    3    1

1976                         ------|-----------
  240  45 35 16  3     15   23   20   11   13   10    5    1    2    1

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             ------------|---------
 2464  29 26 26 18     10   13   14    6   13   11   12    6    9    7

1972                             ----------|-----------
 2503  29 28 26 17      9   14   13    8   14   11   12    6    9    5

1973                             ----------|-----------
 2289  28 29 26 16      7   15   14    7   14   12   12    5    9    4

1974                             ----------|-----------
 2168  30 27 27 15      9   14   14    6   14   12   13    6    8    4

1975                             ----------|-----------
 2106  30 29 25 15      9   15   15    7   14   10   12    6    8    5

1976                          --------|------------
 2485  39 30 21 10     12   19   17    8   13    9    9    4    5    3

LARGE CITY NORMS                 ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                  NORTHEAST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
          QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                    -----------|----------
 1517   14 24 34 28      6    5    6   10   11   12   10   17   10   12

1972                                   -----------|----------
 1212   18 26 33 23      5   10    6   10   13   13   11   14    8   10

1973                                  ------------|----------
 1324   25 28 29 18     10   10   14    8   12    8   15    8    7    8

1974                                    -----------|--------
 1411   15 26 35 25      5    6    6   11   12   13   11   16    8   11

1975                                   ------------|---------
 1319   16 25 34 25      5    8    6   12   11   13   12   15    8   11

1976                                 -----------|----------
 1214   21 29 31 19      7   10    6   13   12   13   10   14    6    8

-------------------------------------------------------------------------
                ETHI BLACK     GRADE 12     SOCIAL STUDIES
-------------------------------------------------------------------------
          QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     -------|-----------
  153   59 22 16  3     35   18    7   14    7    9    6    2    1    1

1972                     ---|--------
  145   70 23  6  1     41   21   13   10    8    3    1    1    1    0

1973                     -----|--------
  239   65 21  9  5     39   17   17    8    4    3    5    2    3    2

1974                     ---------|---------
  256   57 28 13  3     31   19   10   15   10    6    3    5    1    1

1975                      ------|---------
  301   57 30 12  2     29   22   11   15   10    7    3    2    0    1

1976                      ------|---------
  370   58 26 13  2     32   21    9   12    9    7    4    2    1    1

LARGE CITY NORMS                   ------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                          NORTHEAST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------
                  ETHI MEXAM      GRADE 12      SOCIAL STUDIES
-----------------------------------------------------------------------------
         QUARTILE                             PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   -------|---------
  141  61 21 15  3    34   20   13    9    6    7    6    4    1    0

1972                    ---------|---------
   96  46 33 15  6    26   17    9   11   16    7    7    1    3    2

1973                    ------|----------
   81  59 23 15  2    28   17   22    4   11    2    6    6    1    1

1974                       ----------|----------
   92  36 37 23  4    11   18   12   16   15    7   10    9    0    2

1975                    ---------|--------------
  110  49 25 19  6    25   17   11   13    8   11    6    3    2    4

1976                       ----------|----------
  110  36 36 23  5    21   12    8   17   15   12    6    6    2    1

-----------------------------------------------------------------------------
                  ETHI TOTAL      GRADE 12      SOCIAL STUDIES
-----------------------------------------------------------------------------
         QUARTILE                             PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               -------------|---------
 1870  21 24 31 24    11    8    6   11   10   12    9   15    8   11

1972                             ------------|-----------
 1472  25 26 29 20    10   11    7   10   13   12   10   12    7    8

1973                        -----------|--------------
 1690  32 27 25 16    15   11   14    8   11    7   13    7    6    7

1974                             -------------|-----------
 1780  22 27 31 21     9    9    7   12   12   12   10   14    7    9

1975                            -------------|-----------
 1758  26 26 29 19    11   11    7   12   10   12   10   12    6    9

1976                         ----------|-----------
 1733  30 29 26 15    14   13    7   13   12   11    8   11    4    6

LARGE CITY NORMS                 -----------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------------
```

```
                     NORTHEAST  SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

*********************************************************************
              ETH: ANGLO      GRADE  9          SCIENCE
*********************************************************************
          QUARTILE                            PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                                ------------|-------------
2063   22 30 22 26       10    6    9   11   14    8   11   12   12    6

1972                           -------|----------
2002   40 39 18  4       17   15   18   13   16    7    9    5    0    0

1973                           -------|-------
1812   41 40 16  3       18   15   17   15   17    8    6    4    0    0

1974                                ------------|------------
1695   23 31 24 23        9    8   10   10   16   10   11   11   11    4

1975                                ---------|-------------
1558   22 35 22 20        9    8   11   12   18    9   10   10   10    4

1976                                -------|-------------
1304   24 36 22 19        9   10   11   13   16    9   10   10    8    4

*********************************************************************
              ETH: BLACK      GRADE  9          SCIENCE
*********************************************************************
          QUARTILE                            PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                      ------|------
 249   60 33  6  0       34   15   22   14    9    4    1    1    0    0

1972                      ---|------
 333   71 27  2  0       43   20   14   12    9    2    0    0    0    0

1973                      ---|------
 304   70 27  3  0       41   22   15   11    8    2    1    0    0    0

1974                        ---|--------
 306   61 34  5  0       28   22   21   14   10    1    3    1    0    0

1975                      ----|--------
 350   63 31  4  1       35   19   16   13   12    3    0    1    0    1

1976                        ---|--------
 892   63 33  3  1       30   22   21   15    8    2    2    1    0    0

LARGE CITY NORMS                    ------------|-------------
       25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
*********************************************************************
```

```
                         NORTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------
                      ETHI MEXAM      GRADE  9         SCIENCE
-----------------------------------------------------------------------------
           QUARTILE                              PERCENTILES
 FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
   N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

 1971                       --------|------------
   104   45 35 14  6     26    12    15    12    17     9     6     1     4     1

 1972                     ----|-----
   123   67 31  2  0     37    19    24     9     9     1     2     0     0     0

 1973                          ---|--------
   133   52 40  7  2     25    18    23    10    16     3     4     2     0     0

 1974                            -------|-------
   139   40 41 15  4     15    17    15    19    16     7     6     4     1     1

 1975                          ------|--------
   156   45 41 10  4     16    20    19    15    16     5     5     1     3     1

 1976                      -----|--------
   240   53 33 11  3     28    17    19    12    12     6     4     3     1     0
-----------------------------------------------------------------------------
                      ETHI TOTAL      GRADE  9         SCIENCE
-----------------------------------------------------------------------------
           QUARTILE                              PERCENTILES
 FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
   N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

 1971                             ------------|--------------
  2464   27 30 20 23     14     7    11    11    14     8     9    10    10     5

 1972                        ------|----------
  2503   46 37 15  3     22    16    18    13    15     6     7     4     0     0

 1973                        ------|----------
  2290   45 38 14  2     22    16    17    14    16     7     5     4     0     0

 1974                             ----------|-------------
  2179   30 32 20 18     12    11    12    11    15     9     9     9     9     3

 1975                             ----------|-----------
  2107   31 35 18 16     14    10    13    12    16     8     8     8     7     3

 1976                        --------|----------
  2484   41 35 14 11     19    13    16    14    13     6     6     6     5     2

LARGE CITY NORMS                     ------------|-------------
         25 25 25 25     10    10    10    10    10    10    10    10    10    10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10    20    30    40    50    60    70    80    90   100
-----------------------------------------------------------------------------
```

```
                              NORTHEAST  SUBDISTRICT
                  INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------------
                     ETHI ANGLO     GRADE 12        SCIENCE
-------------------------------------------------------------------------------
           QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                                            ---------|--------
 1517   10 16 40 33    5    4    5    5    8   10   24   14   13   12

1972                          ---------|--------
 1212   36 41 24  0   16   15   16   11   19   18    6    0    0    0

1973                        -------|-------
 1324   54 40  6  0   22   19   19   18   16    6    0    0    0    0

1974                                         ----------|-------
 1411   12 18 39 30    5    5    7    5    8   11   22   11   13   12

1975                                    -----------|--------
 1319   13 21 35 30    6    5    8    6    9   10   20   12   12   12

1976                                  -------------|-------
 1214   17 23 36 24    6    7    9    8   10   11   19   11   10    8

-------------------------------------------------------------------------------
                     ETHI BLACK     GRADE 12        SCIENCE
-------------------------------------------------------------------------------
           QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                   ----|--------------
  153   61 18 16  5   36   22    7    6    8    5    8    5    2    0

1972                 --|----
  145   90  9  1  0   61   24    9    3    2    0    1    0    0    0

1973                 --|-----
  239   86 13  1  0   62   21    5    6    4    1    0    0    0    0

1974                    -----|---------
  256   62 24 11  4   33   25   12    8    8    4    5    2    2    0

1975                    -----|---------
  301   58 26 15  1   31   22   15    7    9    7    7    1    1    0

1976                  ----|---------
  371   62 22 13  2   38   19   15    7    5    5    8    1    1    1

LARGE CITY NORMS                 -----------|-----------
        25 25 25 25   10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------------
```

NORTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                ETHI HEXAM      GRADE 12         SCIENCE
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   --------|-----------
 141  52 25 21  1     36   12   13    6   10    6   15    1    1    0

1972                 -----|---------
  96  71 25  4  0     40   24   11   11    9    3    1    0    0    0

1973                 ----|--------
  81  75 23  1  0     48   20   11   12    7    1    0    0    0    0

1974                      -------|----------------
  92  42 23 28  7     13   24   17    5    5   14   12    2    5    1

1975                  ---------|--------------
 110  55 20 18  7     31   17   13    6    7    6    8    5    2    4

1976                     ---------|--------------
 109  46 20 25  9     25   16   11    4   11   13    7    6    6    2

---------------------------------------------------------------------------
                ETHI TOTAL      GRADE 12         SCIENCE
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                --------------|--------
1870  18 17 36 28     10    7    6    5    8    9   22   13   11   10

1972                      ---------|--------
1472  44 36 20  0     22   16   15   10   17   15    5    0    0    0

1973                   --------|-------
1690  59 36  5  0     30   19   17   16   14    5    0    0    0    0

1974                              ---------------|----------
1780  21 20 34 25     10    9    8    6    8   10   19   10   11   10

1975                            --------------|----------
1758  24 22 31 23     12    9   10    6    9    9   17   10    9    9

1976                          -------------|-----------
1734  29 23 30 18     15   10   10    7    9   10   16    9    8    6

LARGE CITY NORMS                 ------------|------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 2

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2956	2791	2445	2331	2291	2015
AVERAGE DAILY ATTENDANCE	2592	2383	2114	2016	1913	1780
INDEX OF AVERAGE DAILY ATTENDANCE	87.7	85.4	86.4	86.5	83.5	88.3
AVERAGE DAILY TRANSACTIONS	6.6	7.0	6.6	6.3	6.3	4.8
INDEX OF AVERAGE DAILY TRANSACTIONS	0.22	0.25	0.27	0.27	0.28	0.24
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.02	-.02	-.02	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	56.4	53.4	50.6	49.5	49.4	54.8
% BLACK	35.7	35.4	37.5	39.2	37.0	30.9
% MEXICAN-AMERICAN	7.5	10.7	11.3	10.9	12.6	12.8
% AMERICAN INDIAN	0.2	0.3	0.3	0.2	0.4	0.5
% ORIENTAL	0.2	0.3	0.3	0.3	0.6	1.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 4

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3147	2862	2696	2407	2059	1831
AVERAGE DAILY ATTENDANCE	2768	2452	2337	2083	1712	1664
INDEX OF AVERAGE DAILY ATTENDANCE	88.0	85.7	86.7	86.5	83.1	89.9
AVERAGE DAILY TRANSACTIONS	6.7	6.9	6.9	6.4	5.4	3.9
INDEX OF AVERAGE DAILY TRANSACTIONS	0.21	0.24	0.26	0.26	0.26	0.21
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.02	-.02	-.02	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	59.2	56.7	53.1	54.6	54.6	48.4
% BLACK	32.9	34.6	38.3	34.0	31.1	39.4
% MEXICAN-AMERICAN	7.4	8.3	8.1	10.5	12.8	11.2
% AMERICAN INDIAN	0.2	0.3	0.2	0.4	0.6	0.2
% ORIENTAL	0.3	0.2	0.3	0.4	1.0	0.8

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 6

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2825	2579	2560	2374	2254	2047
AVERAGE DAILY ATTENDANCE	2474	2169	2231	2034	1860	1837
INDEX OF AVERAGE DAILY ATTENDANCE	87.6	84.1	87.2	85.7	82.5	89.7
AVERAGE DAILY TRANSACTIONS	5.6	5.4	6.0	6.0	5.7	4.3
INDEX OF AVERAGE DAILY TRANSACTIONS	0.20	0.21	0.23	0.25	0.25	0.21
INDEX OF SCHOOL ATTRACTION	-.02	-.02	-.02	-.01	-.02	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	65.0	60.9	59.2	57.2	51.6	51.3
% BLACK	27.3	30.5	31.4	31.3	35.7	35.4
% MEXICAN-AMERICAN	6.9	8.0	9.0	10.9	11.2	11.9
% AMERICAN INDIAN	0.6	0.3	0.2	0.3	0.8	0.2
% ORIENTAL	0.2	0.3	0.2	0.3	0.7	1.0

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

ELEMENTARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	816	616	987	769	669
% FEMALE	****	89.7	90.5	91.1	90.9	92.7
% MALE	****	10.3	9.5	8.9	9.1	7.4
AGE						
% LESS THAN 26 YEARS OLD	****	18.6	18.6	18.8	16.2	9.3
% 26 - 35 YEARS OLD	****	28.3	31.2	30.9	31.4	33.0
% 36 - 45 YEARS OLD	****	23.1	21.9	20.4	22.5	22.6
% 46 - 55 YEARS OLD	****	14.5	12.8	15.0	17.9	18.4
% 56 - 65 YEARS OLD	****	13.4	12.1	11.4	11.3	14.8
% OVER 65 YEARS OLD	****	2.2	3.4	3.7	0.8	2.1
ETHNICITY						
% WHITE	****	69.5	68.7	72.1	67.2	67.6
% BLACK	****	29.6	30.0	26.2	30.0	27.1
% MEXICAN-AMERICAN	****	0.6	0.6	1.5	2.3	4.9
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	37.7	40.8	40.2	36.1	31.0
% 6 - 10 YEARS OF EXPERIENCE	****	18.8	18.7	18.8	19.8	20.6
% 11 - 15 YEARS OF EXPERIENCE	****	13.7	12.0	11.4	13.3	15.7
% 16 - 20 YEARS OF EXPERIENCE	****	10.4	11.3	10.9	11.9	12.0
% 21 - 40 YEARS OF EXPERIENCE	****	17.5	15.7	16.4	17.3	20.0
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.1	0.0	0.0	0.0	0.0
% WITH BACHELORS DEGREE ONLY	****	68.4	69.5	67.8	61.6	57.4
% WITH MASTERS DEGREE	****	31.5	30.5	32.0	38.3	42.5
% WITH DOCTORATE DEGREE	****	0.0	0.0	0.2	0.2	0.1

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 8

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2222	2152	2014	1976	1991	2533
AVERAGE DAILY ATTENDANCE	1909	1783	1681	1692	1732	2328
INDEX OF AVERAGE DAILY ATTENDANCE	85.9	82.8	83.5	85.7	87.0	91.9
AVERAGE DAILY TRANSACTIONS	3.0	3.4	3.2	3.2	3.6	4.0
INDEX OF AVERAGE DAILY TRANSACTIONS	0.14	0.16	0.16	0.16	0.18	0.16
INDEX OF SCHOOL ATTRACTION	-.03	-.03	-.03	-.02	-.03	-.09
ENROLLMENT BY ETHNICITY						
% OTHER	73.5	71.8	69.5	67.7	63.6	59.2
% BLACK	20.5	22.5	23.0	24.6	26.9	30.4
% MEXICAN-AMERICAN	5.6	5.3	6.7	7.3	8.7	9.5
% AMERICAN INDIAN	0.2	0.2	0.5	0.3	0.2	0.1
% ORIENTAL	0.2	0.1	0.3	0.2	0.6	0.9
NUMBER OF DROPOUTS PER 100	****	0.4	1.3	0.8	0.5	****
% OTHER	****	0.4	0.8	0.5	0.3	****
% BLACK	****	0.0	0.4	0.2	0.2	****
% MEXICAN-AMERICAN	****	0.0	0.1	0.1	0.0	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 9

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2185	1963	1887	1695	1715	2467
AVERAGE DAILY ATTENDANCE	1882	1647	1571	1463	1508	2277
INDEX OF AVERAGE DAILY ATTENDANCE	86.2	83.9	83.3	86.3	88.0	92.3
AVERAGE DAILY TRANSACTIONS	2.9	3.0	2.8	2.6	2.9	3.2
INDEX OF AVERAGE DAILY TRANSACTIONS	0.13	0.15	0.15	0.15	0.17	0.13
INDEX OF SCHOOL ATTRACTION	-.03	-.03	-.03	-.02	-.03	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	82.1	80.6	80.7	79.4	76.2	56.3
% BLACK	11.1	13.[illegible]	11.7	12.6	14.3	33.9
% MEXICAN-AMERICAN	6.1	5.8	7.1	7.6	8.7	8.8
% AMERICAN INDIAN	0.5	0.2	0.3	0.3	0.4	0.2
% ORIENTAL	0.1	0.2	0.2	0.1	0.4	0.7
NUMBER OF DROPOUTS PER 100	****	0.5	1.5	0.9	0.7	****
% OTHER	****	0.5	0.9	0.6	0.3	****
% BLACK	****	0.0	0.5	0.2	0.3	****
% MEXICAN-AMERICAN	****	0.0	0.1	0.1	0.1	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

GRADE 12

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2167	2185	2202	2061	2079	1986
AVERAGE DAILY ATTENDANCE	1803	1795	1823	1751	1813	1863
INDEX OF AVERAGE DAILY ATTENDANCE	83.2	82.1	82.8	85.0	87.2	93.8
AVERAGE DAILY TRANSACTIONS	5.3	6.5	6.7	5.9	2.6	1.8
INDEX OF AVERAGE DAILY TRANSACTIONS	0.24	0.30	0.30	0.29	0.12	0.09
INDEX OF SCHOOL ATTRACTION	-.17	-.22	-.23	-.21	-.05	.05
ENROLLMENT BY ETHNICITY						
% OTHER	81.7	79.8	81.6	79.7	75.5	71.7
% BLACK	9.4	12.8	13.3	14.7	16.9	21.3
% MEXICAN-AMERICAN	8.6	7.3	4.7	5.2	6.3	6.2
% AMERICAN INDIAN	0.2	0.0	0.3	0.2	0.1	0.1
% ORIENTAL	0.1	0.1	0.2	0.1	1.2	0.7
NUMBER OF DROPOUTS PER 100	****	3.8	5.6	6.1	4.4	****
% OTHER	****	2.1	3.9	4.6	3.0	****
% BLACK	****	1.7	1.3	1.1	0.9	****
% MEXICAN-AMERICAN	****	0.1	0.4	0.4	0.5	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

NORTHEAST SUBDISTRICT SUMMARY

SECONDARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	616	455	720	580	660
% FEMALE	****	60.9	62.3	61.4	59.3	56.8
% MALE	****	39.1	37.7	38.6	40.7	43.2
AGE						
% LESS THAN 26 YEARS OLD	****	15.5	14.2	10.9	8.3	6.2
% 26 - 35 YEARS OLD	****	34.4	38.3	40.1	37.4	39.3
% 36 - 45 YEARS OLD	****	22.6	19.5	21.0	23.8	23.8
% 46 - 55 YEARS OLD	****	18.5	17.7	17.4	21.2	18.5
% 56 - 65 YEARS OLD	****	7.7	8.7	7.8	8.1	10.8
% OVER 65 YEARS OLD	****	1.6	1.8	2.3	0.5	1.3
ETHNICITY						
% WHITE	****	75.0	77.6	77.6	74.6	73.6
% BLACK	****	21.5	19.1	18.7	21.2	22.9
% MEXICAN-AMERICAN	****	2.8	2.8	3.4	3.6	3.2
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	46.6	46.1	43.9	36.6	34.7
% 6 - 10 YEARS OF EXPERIENCE	****	21.0	21.3	23.5	25.0	24.4
% 11 - 15 YEARS OF EXPERIENCE	****	11.9	12.7	13.2	15.1	17.1
% 16 - 20 YEARS OF EXPERIENCE	****	7.8	7.2	6.4	8.8	9.9
% 21 - 40 YEARS OF EXPERIENCE	****	11.9	12.1	12.5	13.6	13.0
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	6.8	6.7	6.3	7.3	4.7
% WITH BACHELORS DEGREE ONLY	****	57.4	57.0	52.3	45.6	46.1
% WITH MASTERS DEGREE	****	35.6	35.5	40.5	45.8	48.1
% WITH DOCTORATE DEGREE	****	0.5	0.5	1.0	1.3	0.9

**** DATA NOT AVAILABLE

Southwest Subdistrict

1. Anglo median scores in reading remained steady in grade 2 (percentile 66), grade 4 (percentile 48), and grade 9 (percentile 46), and declined in the remaining grades. Across grades, actual growth exceeded expected growth over grades 9-12 and badly trailed expected growth over grades 2-4-6 and grades 4-6-8. Black median scores remained low, improving in grade 2 by 12 percentile points and holding steady in the remaining grades. Across grades, actual growth trailed that expected of low-scorers. Mexican-American median scores remained low, improving in grade 2 by 6 percentile points, holding steady in grades 8 and 9, and declining in the remaining grades. Across grades, actual growth trailed that expected of low-scorers.

2. In language Anglo median scores were generally below norm, remaining steady in grade 4 (percentile 46) and declining in the remaining grades. Across grades, actual growth trailed expected growth. Black median scores remained very low, improving in grade 2 by 18 percentile points, holding steady in grade 9 (percentile 18) and in grade 12 (percentile 12), and declining in the remaining three grades. Across grades, actual growth trailed that expected of low-scorers. Mexican-American median scores remained low, holding steady in grade 2 (percentile 24) and grade 9 (percentile 20), and declining in the remaining four grades. Across grades, actual growth equalled the growth expected of low-scorers over grades 9-12 and trailed it over grades 2-4-6 and grades 4-6-8.

3. In mathematics Anglo median scores remained at or below norm after having declined within all grades, particularly grade 6. Across grades, actual growth exceeded expected growth over grades 9-12 and badly trailed expected growth over grades 2-4-6 and grades 4-6-8. Black median scores remained below norm, improving in grade 2 by 8 percentile points, remaining steady in grade 9 (percentile 38) and grade 12 (percentile 22), and declining in the remaining three grades. Across grades, actual growth trailed that expected of low-scorers. Mexican-American median scores remained below norm, holding steady in grade 2 (percentile 36), grade 9 (percentile 30) and grade 12 (percentile 28), and declined in the remaining three grades. Across grades, actual growth trailed that expected of low-scorers.

4. In social studies Anglo median scores were below norm, holding steady in grade 9 at percentile 44 and declining in grade 12 from percentile 56 to 44. Black median scores remained below norm, holding steady in grade 9 (percentile 24) and in grade 12 (percentile 14). Mexican-American median scores remained below norm, improving slightly in grade 9 (percentile 24 to 28) and holding steady in grade 12 (percentile 24). Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 trailed expected growth in all three ethnic groups.

5. In science Anglo median scores declined in grade 9 from percentile 44 to 40 and in grade 12 from percentile 60 to 50. Black median scores held steady in grade 9 at percentile 20 and in grade 12 at percentile 12. Mexican-American median scores improved in grade 9 from percentile 16 to 26 and declined in grade 12 from percentile 30 to 18. No statement can be made concerning local growth from grade 9 in 1973 to grade 12 in 1976 because the science subtest was irrecoverably misscored by Region X in 1973.

6. The varying number of students tested each year from each ethnic group serves as an index of enrollment trends and as an influence on achievement trends. Anglo test-takers have declined heavily in all grades since 1971 from a high of 68% in grade 8 to a low of 38% in grade 2. In most grades these declines have slowed since 1974. Black test-takers have increased in nearly all grades, at least doubling in size since 1972; in grade 9 in 1976 the number dropped by 57%, due to the new configuration of grades within schools. Mexican-American test-takers have gradually increased in all grades.

7. Since 1972 the number of elementary teachers increased by 14%. The percentage of Anglo teachers has declined, allowing for an increase in minority teachers. Also since 1972 the number of secondary teachers has increased by 9%. The percentage of Anglo teachers has declined, allowing for an increase in minority teachers, mostly black. Of the four integrated subdistricts, this subdistrict claims the largest drop in Anglo teachers in the District.

8. Since 1972 the percentage of elementary teachers who were less than 26 years old had increased during the intervening years and has now declined to its 1972 level. However, the percentage of elementary teachers having less than six years of experience increased from 34% to 38%. These changes were accompanied by a decrease in the percentage of elementary teachers holding only a bachelor's degree from 73% to 65% and by an increase in those holding a master's degree from 27% to 35%.

Also since 1972 the percentage of secondary teachers who were less than 26 years old decreased from 19% to 10%. Similarly, the percentage of secondary teachers having less than six years of experience decreased from 43% to 38%. These changes were accompanied by a decrease in the percentage of secondary teachers holding only a bachelor's degree from 65% to 59% and an increase in those holding a master's degree from 34% to 40%.

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                  ETH: ANGLO     GRADE  2        READING
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                        ------------|----------
1339    11 21 26 43      3    5    6    9    9    9   12   10   19   18

1973                                      ------------|-----------
1093    13 21 26 40      5    4    8    8    9    9   12   10   15   19

1974                          -------------------|----------------
 954    34 15 18 34     16   11   10    3    8    5    6   10   12   18

1975                            ---------------------|------------
 838    31 14 19 35     14   11   10    3    8    5    8   12   13   18

1976                            -----------------------|----------
 836    27 13 20 39     12    9   10    3    7    4    8   13   14   20

---------------------------------------------------------------------------
                  ETH: BLACK     GRADE  2        READING
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                           ------|-------------
 352    39 32 18 10     17   14   18   15    9    7    9    5    5    2

1973                           ------------|-----------
 530    35 29 21 15     13   16   12    9   15    7   10    8    7    4

1974                      ------|-----------------
 620    57 15 18  9     29   17   14    4    8    6    7    6    5    2

1975                        -----------|----------------
 750    42 23 20 15     19   14   13    6   12    5    8   11    8    4

1976                          -------------|-----------------
 822    37 18 22 23     17   10   14    3   11    4    9   14   11    8

LARGE CITY NORMS                  -------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
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                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                           --------|------------
  487  37 31 21 12     12   15   16   15   10    9    9    6    6    2

1973                          ----------|------------
  547  35 29 22 14     16   12   15   11   11    9   12    5    8    3

1974                     ------|---------------------
  459  51 20 20 10     28   15   12    4   12    3    9    9    7    2

1975                       -----------|----------------
  545  45 19 20 16     20   15   13    6   10    6    8   12    7    3

1976                       ---------------|-------------
  609  42 18 22 17     22   13   12    3   11    6   11   10    6    7

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                ------------|--------------
 2235  21 25 24 30      7    8   10   11    9    9   11    8   14   12

1973                              -------------|-------------
 2197  24 25 24 27      9    9   11    9   11    9   12    8   11   11

1974                      ------------|-------------------
 2062  45 16 16 21     23   14   12    4    9    5    7    9    9   10

1975                       ---------------|----------------
 2179  39 18 20 23     17   13   12    5   10    5    8   11   10    9

1976                         ----------------|----------------
 2298  35 16 21 28     16   10   12    3    9    4    9   13   11   12

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETH: MEXAM     GRADE  4        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        ---------|----------
  535  40 35 19  6     17   15   16   17   10    9    5    7    2    2

1972                         ------|---------
  444  43 35 16  5     17   18   17   16   12    9    4    4    3    1

1973                        -------|----------
  501  44 34 17  6     20   15   16   15   11    9    6    3    4    1

1974                      -------|-----------
  467  53 27 15  5     23   19   12   13   12    7    5    5    2    1

1975                     --------|------------
  588  55 23 16  6     27   18   11   12    9    7    7    6    3    1

1976                     -------|----------
  569  61 22 12  6     28   22   12   12    8    6    4    4    2    2

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  4        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ------------|-------------
 2740  30 28 23 20     13   11   12   12   10    9    8    9    8    7

1972                           -----------|-------------
 2434  31 29 22 19     12   12   12   13   10   10    8    9    8    7

1973                          ---------|-------------
 2328  36 28 22 14     16   13   13   13    9   10    7    7    6    5

1974                        -----------|--------------
 2139  42 21 20 17     18   15   11   11    9    7    8   10    6    6

1975                       ---------|---------------
 2236  46 21 19 14     21   16   11   11    8    7    8    7    5    6

1976                      ---------|---------------
 2102  50 20 16 14     24   16   11   11    8    7    6    8    4    5

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
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                      SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETH: ANGLO      GRADE  4         READING
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                                  ------------|-------------
 1759   22 25 26 27    9    8    9   11   10   10   10   11   12   10

1972                                 ------------|-------------
 1619   22 26 26 26    8    8   11   12   10   11    9   11   11   10

1973                               --------------|------------
 1270   26 24 28 23   10   10    9   10   10   12   10   11   10    8

1974                              ----------------|-------------
  989   31 17 23 29   13   11    9    8    7    8    8   15   10   11

1975                             ---------------|---------------
  818   33 18 22 27   14   13    9    9    7    8    9   11    9   13

1976                              --------------|---------------
  711   32 18 21 29   15   10   10    8    8    9    8   11    8   13

-------------------------------------------------------------------------
                  ETH: BLACK      GRADE  4         READING
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                          ------|--------
  379   53 30 11  6   22   20   22   12    7    6    3    4    2    2

1972                          ----|--------
  328   55 32 12  1   24   23   17   15    8    6    4    2    0    0

1973                          ------|-------
  519   54 33 11  2   25   20   18   17    7    6    3    3    1    0

1974                         -------|--------------
  648   51 23 19  7   23   18   13   12    7    8    8    6    2    2

1975                         -------|-----------
  779   55 23 17  6   24   20   14   14    7    7    7    5    2    2

1976                       --------|-------------
  784   58 20 16  7   28   17   13   11    8    6    6    7    3    2

LARGE CITY NORMS                 ------------|-------------
        25 25 25 25   10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                     SOUTHWEST SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                 ETHI ANGLO     GRADE  6         READING
-----------------------------------------------------------------------
      QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             -----------------|-----------
2300  19 23 22 36      8    7   11    7    9    9    9   10   18   13

1972                             --------------|-------------
1593  22 23 23 31      9    9    9    9   10   10    9   10   13   12

1973                               ------------|-------------
1315  21 23 25 31     10    7    8   10   10   10   10   10   14   12

1974                         ---------------|--------------
1166  29 23 25 24     15   10    9    9    9    8   11   10    9    9

1975                        ---------------|--------------
 921  31 24 26 20     18   10    6   11    9    9    8   12    9    7

1976                       -----------------|--------------
 813  31 20 24 25     21    8    6   10    6    8   11    9   11    9

-----------------------------------------------------------------------
                 ETHI BLACK     GRADE  6         READING
-----------------------------------------------------------------------
      QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    -----|---------
 287  61 29  8  2     28   26   14   13    8    5    2    2    0    1

1972                    -----|-----------
 299  61 22 12  4     34   19   12   12    6    7    5    2    2    0

1973                    -----|-----------
 500  59 22 12  7     33   20   12   10    6    5    6    3    3    2

1974                 ------|----------
 616  62 24 11  3     39   18   11   12    6    5    4    4    0    1

1975                 ------|--------
 751  66 23  9  3     42   17   13   10    7    4    4    3    1    0

1976                 -----|-------------
 838  62 22 11  5     43   15   10    9    7    4    5    3    2    2

LARGE CITY NORMS                -------------|------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ---------|----------
  355  46 32 16  7     18   21   12   14   13    7    7    3    5    1

1972                       --------|-----------
  335  46 30 16  7     22   17   11   12   14    8    5    5    4    1

1973                      --------|-----------
  398  49 27 16  7     24   16   16   10   11    8    5    5    3    3

1974                    -------|----------
  401  56 25 14  4     35   18   11   11    6    6    6    2    3    0

1975                    -------|-------------
  473  57 23 15  5     34   18   12   10    7    7    7    3    1    1

1976                   ------|-----------
  570  63 21 11  4     43   16   11   10    5    6    4    2    2    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  6        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             -------------|---------------
 3011  26 25 20 29     11   11   12    8    9    8    8    8   14   10

1972                           ------------|---------------
 2266  31 24 21 24     15   11   10   10   10    9    8    8   10    9

1973                         -------------|---------------
 2248  34 24 21 21     18   11   10   10    9    9    8    8    9    8

1974                     ------------|--------------
 2223  43 24 19 14     26   14   10   10    8    7    8    7    6    5

1975                    ----------|---------------
 2191  48 23 16 11     30   14   10   11    8    7    7    7    4    3

1976                    --------|----------------
 2281  51 21 16 12     35   13    9   10    6    6    7    5    5    4

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETHI ANGLO      GRADE  8         READING
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                    --------------|-------------
  2568  24 21 24 31      14    7    8    8    7    9   11   10   11   13

1972                                    --------------|------------
  1544  23 22 25 29      12    8    9    9    8    9   12   11   11   11

1973                                   ---------------|------------
  1355  25 21 24 29      14    8    7    9    8    9   12   11   12   10

1974                                 -------------|------------
  1132  28 26 27 19      13   11    8   14    8   13   10    8    8    7

1975                                 ----------|-------------
   945  31 28 26 15      14   12   11   13    8   12   11    7    6    6

1976                               ------------|--------------
   826  34 24 23 19      18   10   12   11    7   10    9    9    6    8

-------------------------------------------------------------------------
                ETHI BLACK      GRADE  8         READING
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ----|-----------
   958  65 23  9  4      43   17   11    8    9    4    3    3    1    1

1972                         ----|----------
  1014  68 21  8  2      43   21   10    8    7    4    3    2    1    0

1973                         -----|---------
  1206  67 19 10  3      42   19   12    7    6    4    5    2    2    0

1974                          ---|--------
  1335  71 21  7  1      39   26   14    9    4    4    2    1    1    0

1975                         ----|-------
  1543  71 20  7  2      44   21   14    7    5    4    2    1    1    0

1976                         ----|-------
  1615  73 16  9  2      46   22   10    8    3    4    3    1    1    0

LARGE CITY NORMS                        ------------|-------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    SOUTHWEST SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
              ETHI MEXAM     GRADE  8          READING
-------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                        ------|----------
 500   53 30 14  3      29   18   16    9   11    6    6    4    1    0

1972                      ------|------------
 339   57 23 16  4      35   16   15    8    5    8    4    5    2    1

1973                      ------|---------
 364   59 29  9  4      34   19   14   11    9    5    3    2    2    1

1974                        -----|----------
 363   55 28 14  3      25   21   15   13    7   10    3    2    1    0

1975                        ---|---------
 419   63 26 10  1      28   25   16   14    5    5    4    1    0    0

1976                     ------|-------
 510   67 23  7  3      44   18   14   11    4    3    3    2    1    1

-------------------------------------------------------------------------
              ETHI TOTAL     GRADE  8          READING
-------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0   10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                          --------------|---------------
4131   37 22 19 21      23   10   10    8    8    8    9    7    8    9

1972                        -----------|----------------
2960   43 22 18 17      25   14   10    8    7    7    8    7    6    6

1973                       -----------|-----------------
2981   47 21 17 15      28   14   10    8    7    7    8    6    6    5

1974                        -------|-------------
2865   52 24 16  9      27   19   12   12    6    8    5    4    4    3

1975                      ------|-----------
2965   57 23 14  6      32   19   13   10    6    7    5    3    2    2

1976                     -----|------------
2996   61 19 13  6      38   18   11    9    4    6    5    4    2    3

LARGE CITY NORMS                    ------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                          SOUTHWEST SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------------
                    ETHI ANGLO      GRADE  9          READING
-----------------------------------------------------------------------------------
          QUARTILE                                 PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+

1971                             -------------|-------------
 1720   27 24 24 25      11    10     9     9    12     7    12     9    13     8

1972                               -----------|--------------
 1510   24 29 23 24       7    11     9    11    15     6    11    10    13     7

1973                             ------------|------------
 1277   26 27 26 20       5    14    10    10    14     8    11    10    10     7

1974                               ----------|--------------
 1123   24 29 25 22       5    12    11    10    14     7    13     9    12     6

1975                             -----------|--------------
  988   28 28 22 22       5    15    12    10    14     6    11    10    11     6

1976                             ------------|------------
  776   26 30 26 19       6    13     9    11    16     7    12    11     8     6

-----------------------------------------------------------------------------------
                    ETHI BLACK      GRADE  9          READING
-----------------------------------------------------------------------------------
          QUARTILE                                 PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+

1971                       -----|-------
  639   64 25  9  3      24    27    16    13     8     2     5     2     2     0

1972                       -----|-------
  824   65 27  6  2      22    30    18    10    11     2     3     2     1     0

1973                       -----|------
 1080   66 27  6  1      23    32    17    11     9     3     2     2     1     0

1974                       -----|-------
 1235   65 26  8  1      21    32    17    12    10     3     3     2     1     0

1975                       -----|------
 1447   66 27  5  2      23    32    17    11    10     2     2     1     1     0

1976                       -----|-------
  622   65 24  8  3      25    31    16     9     8     3     3     3     2     0

LARGE CITY NORMS                 -------------|-------------
        25 25 25 25      10    10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+....+
                      0    10    20    30    40    50    60    70    80    90   100
-----------------------------------------------------------------------------------
```

```
                      SOUTHWEST SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                    ETH: MEXAM      GRADE  9        READING
-------------------------------------------------------------------------
      QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     ------|------
   224 64 25  8  3     29   24   14   13    9    2    3    4    2    0

1972                        -----|----------
   300 52 30 14  4     20   22   15   14   11    4    8    3    2    1

1973                        -----|----------
   291 51 31 14  3     18   25   15   12   13    4    9    2    2    0

1974                        ---|-------
   320 62 27  9  3     18   32   17   11   11    3    5    2    1    0

1975                         ---|---------
   395 59 30  9  2     16   29   21   13   11    3    5    2    1    0

1976                        ----|---------
   394 59 28 10  3     16   32   16   11   12    5    4    2    2    0

-------------------------------------------------------------------------
                    ETH: TOTAL      GRADE  9        READING
-------------------------------------------------------------------------
      QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ----------|--------------
  2651 40 24 19 18     16   15   11   10   11    5    9    7   10    6

1972                          -------|----------------
  2706 40 28 17 15     13   18   12   11   14    5    8    7    8    4

1973                         -------|-------------
  2689 45 27 16 11     14   23   13   11   12    5    7    6    5    3

1974                         ------|------------
  2725 47 28 15 10     14   24   14   11   12    5    7    5    5    3

1975                        -----|----------
  2871 52 28 11  9     16   26   15   11   12    4    5    4    5    2

1976                         ------|------------
  1841 46 28 16 10     15   23   13   10   12    5    7    6    5    3

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                  ETHI ANGLO      GRADE 12        READING
------------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

 1971                                   -----------|----------
 1173  16 19 33 32      5    6    6    8    9   15   13   12   11   15

 1972                                  ---------|----------
 1304  18 23 35 25      6    7    6   10   11   17   12   12    8   12

 1973                              -----------|------------
  933  20 31 28 21      8    8   10   10   16   11   12    8    8   10

 1974                                   -----------|----------
  895  16 20 32 32      6    7    5    8   10   13   12   13   10   15

 1975                                -----------|-----------
  829  20 23 30 27      5   10    7   11   10   13   12   11   11   11

 1976                              ------------|----------
  698  22 26 30 23      8    9    9   11   10   14    9   11    7   11

------------------------------------------------------------------------
                  ETHI BLACK      GRADE 12        READING
------------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

 1971                  -----|------
   45  71 22  4  2     38   24   16   11    4    0    4    0    2    0

 1972                  -----|-------
  236  72 16 11  2     40   22   12    6    7    6    4    2    1    0

 1973                  ----|-------
  235  74 16  8  2     40   28   11    6    6    3    3    2    1    0

 1974                    -----|--------
  362  67 18 12  4     33   23   15    8    6    6    4    3    1    1

 1975                   ---|---------
  439  72 19  6  3     43   22   10   11    5    4    2    1    1    1

 1976                  ---|-----
  597  80 14  4  1     46   27   11    6    4    3    1    1    0    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------------
                    ETH: MEXAM          GRADE 12          READING
-------------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION        0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4        +....+....+....+....+....+....+....+....+....+....+

1971                              ----|-------------
   60   52 28 13  7           20   28    7   10   15    7    7    3    2    2

1972                            ------|----------
  139   58 24 15  2           28   22   15   12    6    8    4    4    1    0

1973                            ----|-------
  142   70 25  4  2           32   27   17   10    9    1    1    2    1    0

1974                              ----|-----------
  182   55 27 15  3           21   27   13   13    9   11    3    3    1    0

1975                            ------|---------
  197   61 24 10  5           27   24   12   13    9    6    3    3    2    1

1976                            -----|---------
  183   58 28 10  4           26   24   10   16    8    5    3    2    1    2

-------------------------------------------------------------------------------
                    ETH: TOTAL          GRADE 12          READING
-------------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION        0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4        +....+....+....+....+....+....+....+....+....+....+

1971                                         ------------|-----------
 1317   20 19 31 30            8    8    7    8    9   14   12   11   10   14

1972                                  ---------------|----------
 1722   29 22 30 19           13   11    8    9   10   14   10   10    6    9

1973                                ------------|-----------
 1335   35 27 22 16           16   14   11    9   13    9   10    6    6    7

1974                                 -------------|------------
 1467   34 20 25 21           14   14    8    9    9   11    9    9    7    9

1975                              ------------|-------------
 1493   41 22 20 16           19   15    9   11    8    9    7    7    6    7

1976                            ----------|------------
 1501   50 21 17 12           26   18   10   10    7    9    5    6    4    6

LARGE CITY NORMS                        -------------|------------
        25 25 25 25           10   10   10   10   10   10   10   10   10   10

                            +....+....+....+....+....+....+....+....+....+....+
                            0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                  -------------|------------
 1308  18 24 23 35      8    7    7   10   10    9    9   12   14   15

1973                                ------------|--------------
 1092  21 25 22 31     10    7    9   10   11    9    9    9   10   16

1974                           -------------|---------------
  954  35 21 17 27     16    6   13    8   13    6    6    9   13   10

1975                           -------------|--------------
  834  33 23 17 27     12    7   14    8   15    6    5    9   14    9

1976                           -------------|-----------------
  827  33 21 14 31     14    6   13    7   14    5    4    9   17   10

------------------------------------------------------------------------
                ETHI BLACK     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                     -------|---------
  351  58 24 13  5     31   18   17   11    6    6    6    4    1    1

1973                     ---------|-------------
  530  49 25 17 10     30   14   11   11    9    8    6    6    3    4

1974                      -------|------------
  620  56 25 11  8     30    7   18   11   15    6    3    4    4    2

1975                        -----|-----------------
  748  50 21 10 18     23    9   19    8   13    4    3    6    8    6

1976                        -------------|----------------
  819  40 23 17 21     18    8   14   10   13    5    6    8   11    7

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                    ETH: MEXAM     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          -------|-----------
  472  53 25 17  5     27   18   13   11    8    7    8    4    3    1

1973                         --------|-------------
  547  51 25 15  9     30   14   11   12    8    6    7    4    5    1

1974                          -------|------------
  459  59 21  9 11     27   12   20    8   12    4    3    4    5    3

1975                            -----|------------
  536  53 24 15  9     23   10   20    9   15    6    5    5    6    2

1976                            -----|------------
  599  55 21 12 13     24    9   21    8   12    5    4    5    6    5

------------------------------------------------------------------------
                    ETH: TOTAL     GRADE  2        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                               ------------|---------------
 2188  32 24 20 24     16   11   10   10    9    8    8    9    9    9

1973                             ------------|---------------
 2196  35 25 19 20     20   10   10   11   10    8    8    7    7    9

1974                            -----------|---------------
 2062  47 22 13 18     23    8   16    9   14    6    4    6    9    6

1975                            -----------|---------------
 2164  44 22 14 20     19    8   17    8   14    5    4    7   10    6

1976                            -------------|----------------
 2276  41 22 14 23     18    7   16    8   13    6    4    7   12    8

LARGE CITY NORMS                      ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETH: ANGLO     GRADE  4        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                            -----------|------------
 1759  28 30 24 18     12   10   12   13   10   11   10    7    8    6

1972                            ---------|-------------
 1619  30 30 22 18     11   13   11   15   10   11    9    8    6    6

1973                          ----------|--------------
 1270  34 27 23 16     16   12   12   13    9   11    9    7    5    5

1974                         ---------------|--------------
  975  36 17 22 25     17   12   10    8    5   10    8    9   13    7

1975                        --------------|---------------
  809  38 19 19 24     18   12    9   10    7    8    8   10    9    8

1976                        ----------------|-------------
  705  36 18 23 22     18   11    9    9    8   10    8   10    9    7

-----------------------------------------------------------------------
                ETH: BLACK     GRADE  4        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ------|-------
  379  61 30  7  3     28   24   16   16    7    4    2    2    1    1

1972                     -----|------
  328  67 24  8  1     28   30   16   10    7    4    4    2    0    0

1973                     -----|--------
  519  64 28  8  1     30   26   15   14    7    4    3    1    0    0

1974                    -------|-------------
  640  58 18 17  7     32   16   12   11    6    9    7    3    3    1

1975                    -----|---------------
  768  58 20 16  6     33   17   11   10    7    8    5    5    2    1

1976                  ------|----------------
  781  62 17 15  6     40   15   10    8    7    7    6    5    2    1

LARGE CITY NORMS                 -------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: HEXAM     GRADE  4         LANGUAGE
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                                     
                           -------|---------
  535  46 36 15  3    19   19   15   19    8    8    5    2    2    1

1972
                          -------|--------
  444  52 32 11  5    22   19   16   18    9    6    4    3    2    1

1973
                          -------|--------
  501  53 30 12  4    23   22   17   14    9    6    6    2    2    1

1974
                        ---------|--------------
  466  53 21 19  6    29   17   11   13    6    9    6    9    2    0

1975
                        -------|--------------
  581  56 20 16  8    33   16   10    9    8    9    4    5    5    0

1976
                        -------|--------------
  559  57 19 17  7    33   16   10    9    7    8    8    5    3    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  4         LANGUAGE
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971
                              --------|-------------
 2740  36 31 20 13    16   14   13   14    9   10    8    6    6    4

1972
                            ---------|--------------
 2434  39 30 18 13    16   17   13   15    9    9    7    6    5    4

1973
                           --------|------------
 2328  45 28 17 10    21   18   14   13    8    8    7    5    3    3

1974
                          -----------|---------------
 2116  47 18 20 15    24   14   11   10    6    9    7    7    7    4

1975
                        -----------|---------------
 2208  50 20 17 13    27   15   10   10    7    8    6    7    6    3

1976
                       ----------|-----------------
 2082  51 18 18 12    30   14   10    9    7    9    7    7    5    3

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                    ETHI ANGLO      GRADE  6         LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

 1971                            ---------------|--------------
 2300   27 20 21 32     9   12    8    7   10    7    8   10   15   12

 1972                          ---------------|--------------
 1593   29 23 21 27    12   12    8    8   11    8    9    9   12   11

 1973                           --------------|-------------
 1315   29 23 22 27    12   12    9    8   11    9    9    9   10   12

 1974                       ---------------|------------
 1145   32 22 28 18    16   12    8    6   12   10   12   10    9    5

 1975                      ---------------|------------
  905   36 21 27 16    18   14   10    5   11    8   12   12    7    4

 1976                      --------------|--------------
  796   37 21 24 18    21   12    9    6   10    7   10   11   10    4

-------------------------------------------------------------------------
                    ETHI BLACK      GRADE  6         LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION 0    10   20   30   40   50   60   70   80   90   100
 N        1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

 1971                   -----|----------
  287   63 26  9  2    35   23   11    8   12    5    3    1    1    0

 1972                   -------|----------
  299   59 27  8  6    36   14   15   10   11    4    3    2    3    2

 1973                   ------|----------
  500   62 23 10  6    36   18   13   10    8    4    4    2    3    2

 1974                ------|-----------
  615   65 22 12  2    43   16   13    5   10    4    6    3    0    0

 1975                -----|-----------
  764   71 17 10  2    48   17    9    6    8    5    3    3    1    0

 1976                ------|---------------
  836   64 18 13  5    46   13    9    4    9    6    5    4    3    1

LARGE CITY NORMS                 -------------|-------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETHI MEXAM     GRADE  6        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      --------|-----------
  355  49 27 15  9     26   15   15   10   11    7    5    4    6    1

1972                      ---------|-------------
  335  46 26 18 10     23   19    9   11   10    9    7    7    4    2

1973                     --------|--------------
  398  50 24 18  8     27   16   12   10   10    7    7    5    5    2

1974                     --------|-----------
  396  53 27 16  4     29   18   11    7   14    7    6    4    3    1

1975                     --------|-------------
  466  53 23 20  4     28   17   13    6   12    8    8    6    2    1

1976                   ------|--------------
  555  61 21 15  2     39   17    9    7   10    8    5    4    1    0

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE  6        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          --------------|---------------
 3011  33 22 19 26     14   14    9    8   10    7    7    9   13    9

1972                         ------------|----------------
 2266  35 24 19 22     17   14    9    9   11    7    8    8   10    8

1973                        ------------|--------------
 2248  40 23 18 19     20   14   10    9   10    7    8    7    7    8

1974                     -----------|--------------
 2195  45 23 21 11     26   14   10    6   12    8    9    7    5    3

1975                     --------|---------------
 2181  52 20 20  8     31   15   10    5   10    7    8    7    4    2

1976                   ---------|---------------
 2244  53 20 18  9     35   14    9    5   10    7    7    6    5    2

LARGE CITY NORMS                  -----------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETHI ANGLO      GRADE  8         LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ---------------|-----------
 2568  32 21 23 24     16   11    9    9    9   10    9   10    9   10

1972                            --------------|-----------
 1544  29 23 23 25     13   10   10   10    9   10    9    9   11    9

1973                           ------------|--------------
 1355  33 24 21 23     16   12   10    9   11    8    9    7    9   10

1974                          ------------|-----------
 1124  36 24 25 14     20   10   11   10    9   12   10    7    7    3

1975                        -------------|----------
  922  39 23 27 11     23   11    8   11    9   13   11    8    4    2

1976                        -------------|------------
  826  38 24 24 14     24   10    8   10   10   12    9    7    6    4

-------------------------------------------------------------------------
                 ETHI BLACK      GRADE  8         LANGUAGE
-------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   -----|-----------
  958  63 21 11  4     37   17   14    9    6    6    4    3    2    1

1972                   -----|----------
 1014  66 20 10  4     38   19   15    7    7    4    4    3    2    1

1973                   -----|---------
 1206  67 21  8  4     37   20   15    9    6    3    4    2    2    1

1974                 ----|--------
 1321  73 18  8  1     52   16    8    8    6    5    2    1    0    0

1975                 ---|--------
 1508  76 16  7  1     59   13    7    8    5    4    3    1    0    0

1976                 ---|-----------
 1589  71 18  8  2     56   11    8    9    6    5    3    2    1    0

LARGE CITY NORMS                    ------------|-----------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                    ETHI MEXAM     GRADE  8         LANGUAGE
------------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ---------|------------
  500  53 25 16  7     29   17   13    9   10    8    6    6    3    0

1972                    -------|-------------
  339  57 22 14  7     33   16   14    7    8    6    6    3    4    2

1973                    -------|-----------
  364  57 29  8  5     31   18   16   10   12    5    3    3    2    1

1974                    -------|----------
  365  59 25 13  3     33   19   13    8   11    7    5    2    2    0

1975                   ----|------------
  410  64 24 10  2     48   11    8   13    7    6    3    1    1    0

1976                   ----|--------------
  505  65 20 14  1     48   12    8    8    9    9    4    2    0    0

------------------------------------------------------------------------
                    ETHI TOTAL     GRADE  8         LANGUAGE
------------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       -----------|---------------
 4131  42 22 19 17     23   13   11    9    9    9    7    8    6    6

1972                      ----------|----------------
 2960  46 22 17 15     24   14   12    8    8    7    7    6    7    5

1973                     ---------|--------------
 2981  50 23 14 13     27   16   13    9    9    6    6    5    5    5

1974                    -------|--------------
 2850  57 21 16  7     37   14   10    9    8    8    6    4    3    1

1975                   -----|-------------
 2894  62 20 14  4     46   12    8   10    7    7    6    3    2    1

1976                   -----|---------------
 2962  61 20 14  6     45   11    8    9    8    7    5    3    2    1

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                          SOUTHWEST SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------------------------
                 ETHI ANGLO      GRADE  9         LANGUAGE
------------------------------------------------------------------------------------------
        QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                                 --------------|-------------
 1720  28 21 22 30       15     8     8    13     5     9     7    14    12    10

1972                                 --------------|-------------
 1510  26 20 23 28       13     8    10    12     6    10     8    13    12     8

1973                                 -------------|--------------
 1273  27 23 24 25       10     9    11    12     7     9     9    14    12     7

1974                                 -------------|--------------
 1111  28 24 22 25       12     9    11    14     6    10     7    12    12     7

1975                                -----------|----------------
  980  32 25 19 24       12    11    13    13     7     9     6    10    12     6

1976                               -----------|----------------
  760  36 22 21 21       13    12    15    12     6     9     7    10    11     5

------------------------------------------------------------------------------------------
                 ETHI BLACK      GRADE  9         LANGUAGE
------------------------------------------------------------------------------------------
        QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+....+

1971                      ------|----------
  639  63 20 11  6       36    18    15    11     3     4     5     4     3     1

1972                       -----|----------
  824  61 21 12  5       31    19    16    12     4     6     5     4     2     1

1973                       ------|--------
 1067  59 25 11  4       30    20    14    16     4     5     4     4     2     0

1974                       -----|---------
 1220  62 23 10  5       29    21    16    14     4     5     4     4     2     1

1975                       -.---|--------
 1433  63 22 11  4       31    20    17    13     4     6     3     3     2     1

1976                      ------|--------
  602  63 23  9  5       37    17    13    16     3     3     3     3     3     1

LARGE CITY NORMS                     -------------|-------------
       25 25 25 25       10    10    10    10    10    10    10    10    10    10

                     +....+....+....+....+....+....+....+....+....+....+....+
                     0    10    20    30    40    50    60    70    80    90   100
------------------------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                   ETHI MEXAM      GRADE  9       LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                    -------|-----------
  224  52 28 12  8    35   13    8   17    8    7    3    4    4    1

1972                     ---------|-----------
  300  46 28 18  7    24   14   14   16    7    8    7    7    2    1

1973                     ---------|------------
  286  46 23 20  9    24   13   16   12    5    9    6    8    4    1

1974                     ------|---------
  330  54 27 13  6    21   19   21   15    5    7    4    4    3    1

1975                     ------|---------
  390  53 27 14  6    23   17   20   16    5    8    4    4    3    1

1976                    ------|--------
  385  60 23 13  5    26   18   20   14    5    6    4    4    3    0

-----------------------------------------------------------------------
                   ETHI TOTAL      GRADE  9       LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     -------------|-----------------
 2651  39 21 18 22    22   10   10   13    5    7    6   11    9    7

1972                        ---------|-----------------
 2706  41 22 19 19    20   12   12   12    5    8    7   10    8    5

1973                        -------|----------------
 2667  42 24 18 15    20   14   13   13    6    7    6    9    7    3

1974                     ---------|--------------
 2710  47 24 16 14    21   16   15   15    5    7    5    7    6    3

1975                     ------|--------------
 2843  51 24 14 12    23   16   16   13    5    7    5    5    6    3

1976                     ------|---------------
 1797  51 22 15 12    25   15   15   13    5    7    5    6    6    3

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                  ETHI ANGLO      GRADE 12        LANGUAGE
--------------------------------------------------------------------------
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                 --------------|-----------
 1173  21 22 26 31       9    8    7   10    9    9   13   11   11   13

1972                               -------------|------------
 1304  23 26 26 25       9    9   10   12   10   10   12    9   10    9

1973                               -----------|-----------
  933  24 30 26 19      12    8   12   12   10   11   11    9    7    8

1974                                 -----------|--------------
  890  22 23 27 28       9    9    7   10   10   11   13    8   11   12

1975                             -------------|--------------
  827  27 25 22 26       8   12   11   11    9    9   10    9   11   10

1976                            ------------|-------------
  687  28 26 25 21      10   11   10   14   10   10   10   10    7    8

--------------------------------------------------------------------------
                  ETHI BLACK      GRADE 12        LANGUAGE
--------------------------------------------------------------------------
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ---|---------------
   45  62 24 11  2      42   13   13    4   13    4    7    0    0    2

1972                    ----|-----------
  236  69 20  8  3      38   24   12    8    8    6    3    2    1    1

1973                    ----|--------
  229  70 22  5  2      48   19   12    9    6    3    2    0    2    0

1974                     -----|-----------
  355  62 20 12  6      34   21   12   10    6    7    4    2    3    2

1975                     ---|--------
  438  72 16  9  3      39   28    9    8    5    4    4    2    1    1

1976                     ---|-------
  560  70 21  6  2      39   24   13   10    6    3    2    2    1    0

LARGE CITY NORMS                  -------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------------
                 ETHI MEXAM     GRADE 12        LANGUAGE
------------------------------------------------------------------------------
          QUARTILE                         PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                             ---------|-----
   60   43 35 15  7      15   22   12   20   10    7    8    3    3    0

1972                        -------|---------------
  139   51 23 21  5      24   20   12   12    6   12    7    4    0    4

1973                      ---------|--------
  142   49 37 10  5      32   13   13   15   11    6    3    1    3    1

1974                        --------|----------
  181   49 30 17  4      25   20   10   12   12    7    9    3    2    1

1975                        -------|---------
  196   52 30 13  6      24   17   17   15    8    5    6    4    3    1

1976                      --------|-----------
  179   50 29 15  6      26   17   12   13   11    6    7    4    3    0

------------------------------------------------------------------------------
                 ETHI TOTAL     GRADE 12        LANGUAGE
------------------------------------------------------------------------------
          QUARTILE                         PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                  --------------|----------
 1317   24 22 25 29      10    9    8   10    9    9   12   11   11   12

1972                               -----------|-------------
 1722   32 25 23 20      14   12   10   11    9   10   10    7    8    8

1973                           -----------|-----------
 1328   35 30 21 15      20   11   12   12   10    9    9    6    6    6

1974                            -------------|-------------
 1453   35 23 22 20      17   13    9   10    9    9   10    6    8    8

1975                         ----------|--------------
 1488   44 23 17 16      20   18   11   11    8    7    8    6    7    6

1976                       ---------|------------
 1449   47 25 16 12      23   17   11   12    9    7    7    6    4    4

LARGE CITY NORMS                      -----------|-----------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------------
```

```
                           SOUTHWEST SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------------------
                   ETH: ANGLO      GRADE  2       MATHEMATICS
---------------------------------------------------------------------------------------
          QUARTILE                                   PERCENTILES
FALL   DISTRIBUTION                 0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4                  +....+....+....+....+....+....+....+....+....+....+

1972                                                  -----------|-----------
 1356  17 21 30 31                     6    6   10    9    8   13   11   13   11   13

1973                                              --------------|----------
 1093  23 22 29 26                     8    8   11    9    8   12   12   11   10   12

1974                                             ------------|------------
  954  21 26 34 19                    12    8    8   10   10   13   12   10   10    6

1975                                             ------------|------------
  817  19 31 31 19                    11    6   10    9   13   13   12    9    9    8

1976                                               ----------|----------
  825  19 29 36 16                    10    7    8   11   13   13   17    8    9    5

---------------------------------------------------------------------------------------
                   ETH: BLACK      GRADE  2       MATHEMATICS
---------------------------------------------------------------------------------------
          QUARTILE                                   PERCENTILES
FALL   DISTRIBUTION                 0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4                  +....+....+....+....+....+....+....+....+....+....+

1972                                      --------|---------
  354  48 29 18  5                    23   16   17   14    8   11    6    1    3    1

1973                                      --------|-----------
  530  49 26 18  7                    23   14   18   11    9   11    5    5    3    2

1974                                    ------|--------
  620  53 32 12  3                    32   17   14   11   10    7    3    2    2    1

1975                                      -------|----------
  734  39 39 18  4                    23   13   15   14   13    8    7    4    2    1

1976                                       -----------|----------
  820  32 36 25  6                    17   12   14   13   12   13    9    5    4    1

LARGE CITY NORMS                                -------------|-------------
       25 25 25 25                    10   10   10   10   10   10   10   10   10   10

                                    +....+....+....+....+....+....+....+....+....+....+
                                    0   10   20   30   40   50   60   70   80   90  100
---------------------------------------------------------------------------------------
```

```
                          SOUTHWEST SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2       MATHEMATICS
--------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                         -----------|----------
  488  40 26 26  8      18   13   15   11    9   13   10    6    3    3

1973                         -----------|-----------
  547  40 27 24  9      20   11   15   13    8   12    7    8    4    2

1974                      ---------|------------
  459  44 31 19  7      27   14   16    9    8    7    8    5    4    1

1975                          -------|----------
  522  38 35 22  5      21   14   12   15   11   10    7    6    2    1

1976                          ----------|----------
  599  35 36 23  6      18   14   13   12   15   10   10    4    4    1

--------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2       MATHEMATICS
--------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                              ------------|-------------
 2253  27 24 27 22      11    9   12   10    8   13   10   10    8    9

1973                           ------------|------------
 2197  34 24 25 17      15   10   13   11    8   12    9    8    7    7

1974                          ----------|----------
 2062  36 29 24 11      22   12   12   10    9   10    9    6    6    4

1975                          ----------|----------
 2118  31 35 25 10      18   11   12   12   13   11    9    6    5    4

1976                         -------------|-----------
 2275  28 34 28 10      15   11   11   12   13   12   12    6    6    3

LARGE CITY NORMS                  -------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                    SOUTHWEST SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: ANGLO     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                            ----------|-------------
 1759  30 30 23 18     11   10   15   13   11    9   10    9    8    5

1972                            ----------|-------------
 1619  30 33 21 17     11   10   14   14   13    7   10    9    7    5

1973                          ---------|-------------
 1270  37 30 19 14     13   14   14   14   11    7   10    6    6    4

1974                      -------------|----------------
  930  43 17 26 14     23   15    8   11    5    9   11    7    8    5

1975                      ---------------|---------------
  808  40 20 24 16     23   11    7   11    7    9   10    7    8    7

1976                     --------------|---------------
  712  42 21 20 17     26   12    6   13    7    7    8    6    9    7

------------------------------------------------------------------------
                ETH: BLACK     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     ----|---------
  379  67 22  7  4     31   24   16   11    6    4    4    1    3    1

1972                      ----|-------
  328  66 26  7  1     27   27   22   11    5    5    2    1    1    0

1973                     -----|-------
  519  69 25  5  1     30   23   23   13    6    3    2    1    0    0

1974                   ---|-----------
  633  68 19 11  2     42   18    9   13    3    4    6    1    1    1

1975                   -----|---------
  766  67 19 11  2     43   19    8   12    4    5    4    2    2    1

1976                  ----|-----------
  787  71 16 11  3     49   18    6    9    5    4    4    2    2    1

LARGE CITY NORMS                  ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                  ETHI MEXAM     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|---------
  535  52 30 13  6     22   18   18   14    8    6    5    3    3    1

1972                        ------|---------
  444  49 32 14  5     18   14   25   16    8    7    6    4    2    1

1973                       ------|-------
  501  54 32 10  5     21   20   23   14    8    4    4    3    2    1

1974                   -----|-----------
  437  67 19 12  2     43   18    8   14    4    6    3    2    2    0

1975                   ------|------------
  578  65 20 11  3     41   17    9   12    6    5    4    2    2    1

1976                   ---|-----------
  566  67 19 10  4     46   15   10   10    5    5    4    3    2    1

------------------------------------------------------------------------
                  ETHI TOTAL     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         --------|-------------
 2740  39 29 19 13     16   14   16   13    9    7    8    7    6    3

1972                          -------|------------
 2434  38 32 17 13     14   13   18   14   11    6    8    7    5    4

1973                        ------|-----------
 2328  48 29 14  9     19   17   18   14    9    5    7    4    4    3

1974                    ---------|--------------
 2028  56 16 18  8     33   16    8   12    4    7    8    4    4    3

1975                    -------|---------------
 2201  56 20 16  8     35   15    8   12    6    7    6    4    4    3

1976                  ------|----------------
 2103  60 18 14  8     40   15    7   11    6    5    6    4    4    3

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                    SOUTHWEST SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
              ETHI ANGLO     GRADE  6      MATHEMATICS
--------------------------------------------------------------------------
           QUARTILE                          PERCENTILES
FALL     DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               ------------|--------------
2300     27 26 23 24     11   8    14   10   11   8    8    11   13   7

1972                              -----------|------------
1593     29 28 26 17     13   9    12   11   11   10   10   10   7    6

1973                              -----------|--------------
1315     28 26 25 18     12   11   11   11   12   10   8    13   7    6

1974                          --------------|-----------
1145     35 26 23 16     19   12   9    9    11   11   9    8    7    5

1975                         ----------|--------------
 897     43 24 21 13     24   14   12   8    9    10   8    6    6    4

1976                      ------------|-----------------
 806     45 22 19 15     29   12   9    8    6    7    8    6    7    4

--------------------------------------------------------------------------
              ETHI BLACK     GRADE  6      MATHEMATICS
--------------------------------------------------------------------------
           QUARTILE                          PERCENTILES
FALL     DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|--------
 287     66 27  6  1     37   21   17   10   8    4    2    1    0    0

1972                     ---|-----------
 299     67 24  7  2     42   19   12   11   8    3    2    2    1    0

1973                      ---|-----------
 500     67 21  9  3     41   19   10   10   6    5    3    3    2    0

1974                    ----|----------
 618     68 23  8  2     46   17   13   6    8    6    2    1    1    0

1975                    ---|-------
 759     77 17  4  1     56   16   11   7    5    2    2    1    1    0

1976                   --|-------------
 834     73 14  9  3     57   14   7    5    5    5    3    3    1    0

LARGE CITY NORMS                   ------------|--------------
         25 25 25 25     10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

```
                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM     GRADE  6      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -------|--------
  355  51 34 13  3     24   16   17   15   12    7    3    4    1    0

1972                      --------|----------
  335  49 30 16  6     24   15   17   11   12    7    5    6    2    1

1973                       ------|-----------
  398  51 30 14  5     23   19   15   13   11    7    4    5    2    2

1974                    ----|-----------
  395  64 24 10  3     37   22   13    8    8    6    3    2    1    1

1975                    ----|----------
  472  67 19 10  3     38   21   13    7    7    6    3    2    1    1

1976                  ---|---------
  558  74 16  8  2     55   15    9    5    6    4    2    2    2    0

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  6      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ---------|---------------
 3011  34 27 20 19     15   10   15   11   11    8    7    9   10    6

1972                        -----------|-------------
 2266  38 27 22 13     19   11   13   11   11    9    8    8    5    5

1973                       ----------|--------------
 2248  41 26 20 13     20   14   11   11   10    8    6    9    5    4

1974                    ----------|------------
 2196  49 24 16 10     30   16   11    8   10    9    6    5    4    3

1975                   ------|-------------
 2172  60 20 13  7     38   16   12    8    7    6    5    3    3    2

1976                  -----|---------------
 2258  63 18 13  7     46   13    8    6    7    6    5    4    4    2

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                     SOUTHWEST SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
             ETHI ANGLO      GRADE  8       MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            -----------|--------------
 2568  38 24 21 17       19   13   12   10    9    8    9    8    6    6

1972                             ----------|--------------
 1544  36 27 19 18       16   14   13   11    9    8    8    7    7    6

1973                            -----------|-------------
 1355  39 26 19 16       18   14   12   11    9    8    7    8    6    5

1974                            -----------|-------------
 1132  37 26 23 14       16   14   11   11   10   11    9    7    6    4

1975                          ------------|-------------
  944  42 26 20 13       25   12    9   13    8    8    9    6    6    3

1976                          -----------|---------------
  [illegible]  43 23 21 13       24   14    9   11    9   10    7    6    5    5

-----------------------------------------------------------------------
             ETHI BLACK      GRADE  8       MATHEMATICS
-----------------------------------------------------------------------
        QUARTILE                               PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ---|-------
  958  76 15  8  1       47   23   10    6    4    4    2    2    0    1

1972                    ----|------
 1014  75 19  4  2       46   24   10    9    5    2    2    1    1    0

1973                     ---|-------
 1206  76 19  4  1       42   25   15    8    5    2    2    1    1    0

1974                    --|-------
 1314  77 17  5  1       55   17    9    9    5    3    2    1    0    0

1975                   --|--------
 1514  79 16  4  1       57   17    8    8    4    2    1    1    0    0

1976                   --|--------
 1623  78 16  5  1       60   14    8    8    4    2    2    1    0    0

LARGE CITY NORMS                       ------------|-----------
       25 25 25 25       10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                    ETHI MEXAM      GRADE  8       MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                       ------|---------
 500   62 21 15  2        32   23   14    7    6   10    5    2    0    0

1972                       -----|--------
 339   67 21  8  4        36   22   17    8    5    4    2    3    3    1

1973                       ----|---------
 364   65 26  7  2        36   21   17   10    6    3    3    2    0    1

1974                       -----|-------
 363   68 19 12  1        32   25   15    9    6    8    4    1    1    0

1975                      --|---------
 420   74 19  6  1        52   17   11    9    4    4    2    1    1    0

1976                    ----|---------
 520   72 19  8  1        49   17   10   11    5    6    2    1    1    0

---------------------------------------------------------------------------
                    ETHI TOTAL      GRADE  8       MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                        --------|---------------
4131   51 21 17 11        27   17   12    8    7    7    7    6    4    4

1972                        -------|-------------
2960   54 23 12 11        29   19   13   10    7    6    5    4    4    4

1973                        -------|----------
2981   58 23 11  8        30   20   14   10    7    5    4    4    3    3

1974                     --------|-----------
2849   60 21 13  6        37   17   10   10    7    7    5    3    3    2

1975                     ----|------------
2933   66 20  9  5        46   15    9   10    6    5    4    3    2    1

1976                     ---|------------
3056   67 19 10  4        48   15    9    9    6    5    3    3    2    2

LARGE CITY NORMS                    ------------|-------------
       25 25 25 25        10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------------
                    ETH: ANGLO      GRADE  8       MATHEMATICS
--------------------------------------------------------------------------------
                QUARTILE                          PERCENTILES
FALL          DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N              1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                -----------|--------------
 2568          38 24 21 17     19   13   12   10    9    8    9    8    6    6

1972                                 ----------|--------------
 1544          36 27 19 18     16   14   13   11    9    8    8    7    7    6

1973                                -----------|-------------
 1355          39 26 19 16     18   14   12   11    9    8    7    8    6    5

1974                                -----------|-------------
 1132          37 26 23 14     16   14   11   11   10   11    9    7    6    4

1975                              -----------|-------------
  944          42 26 20 13     25   12    9   13    8    8    9    6    6    3

1976                              ----------|-------------
  867          43 23 21 13     24   14    9   11    9   10    7    6    5    5

--------------------------------------------------------------------------------
                    ETH: BLACK      GRADE  8       MATHEMATICS
--------------------------------------------------------------------------------
                QUARTILE                          PERCENTILES
FALL          DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N              1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ----|-------
  958          76 15  8  1     47   23   10    6    4    4    2    2    0    1

1972                          -----|------
 1014          75 19  4  2     46   24   10    9    5    2    2    1    1    0

1973                           ----|-------
 1206          76 19  4  1     42   25   15    8    5    2    2    1    1    0

1974                          --|--------
 1314          77 17  5  1     55   17    9    9    5    3    2    1    0    0

1975                         ---|--------
 1514          79 16  4  1     57   17    8    8    4    2    1    1    0    0

1976                         --|---------
 1623          78 16  5  1     60   14    8    8    4    2    2    1    0    0

LARGE CITY NORMS                         ------------|-------------
               25 25 25 25     10   10   10   10   10   10   10   10   10   10

                             +....+....+....+....+....+....+....+....+....+....+
                             0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------------
```

```
                          SOUTHWEST SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------------
                 ETHI MEXAM       GRADE  8        MATHEMATICS
------------------------------------------------------------------------------
          QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|---------
  500   62 21 15  2       32   23   14    7    6   10    5    2    0    0

1972                      -----|--------
  339   67 21  8  4       36   22   17    8    5    4    2    3    3    1

1973                      ----|---------
  364   65 26  7  2       36   21   17   10    6    3    3    2    0    1

1974                      -----|-------
  363   68 19 12  1       32   25   15    9    6    8    4    1    1    0

1975                     --|---------
  420   74 19  6  1       52   17   11    9    4    4    2    1    1    0

1976                   ----|---------
  520   72 19  8  1       49   17   10   11    5    6    2    1    1    0

------------------------------------------------------------------------------
                 ETHI TOTAL       GRADE  8        MATHEMATICS
------------------------------------------------------------------------------
          QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       --------|---------------
 4131   51 21 17 11       27   17   12    8    7    7    7    6    4    4

1972                       -------|-------------
 2960   54 23 12 11       29   19   13   10    7    6    5    4    4    4

1973                       -------|----------
 2981   58 23 11  8       30   20   14   10    7    5    4    4    3    3

1974                     -------|----------
 2849   60 21 13  6       37   17   10   10    7    7    5    3    3    2

1975                     ----|-----------
 2933   66 20  9  5       46   15    9   10    6    5    4    3    2    1

1976                     ---|-------------
 3056   67 19 10  4       48   15    9    9    6    5    3    3    2    2

LARGE CITY NORMS                   ------------|-------------
        25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------------
```

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```
                SOUTHWEST SUBDISTRICT
       INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                 ETHI ANGLO      GRADE  9       MATHEMATICS
---------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                 -----------|---------
  1720  20 26 34 20      6    7   16    9    9   17   12    8   11    5

1972                                 -----------|---------
  1510  19 30 32 19      5    7   17   10   10   16   12    7   12    4

1973                                 -------|-------------
  1285  19 33 31 18      2   10   18   11   11   16   11    6   11    4

1974                                 -----------|---------
  1124  18 31 34 17      2    8   17   10   11   17   13   10    9    3

1975                                 -------|-----------
   971  18 34 35 13      2    7   18   13   12   19   12    6    8    3

1976                                 -------|-----------
   769  22 31 33 14      2    9   21    9   11   18   11    6    9    3

---------------------------------------------------------------------------
                 ETHI BLACK      GRADE  9       MATHEMATICS
---------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             --------|-------
   639  36 37 23  3      8   16   25   14   10   16    5    3    1    1

1972                             ----|-------
   824  34 43 21  2      6   15   30   12   14   15    5    1    1    0

1973                             ----|-------
  1085  35 42 21  1      5   18   28   16   11   14    6    2    1    0

1974                             ----|-------
  1251  37 42 20  1      4   18   31   14   12   13    5    3    1    0

1975                             --------|---
  1456  33 44 22  1      3   16   29   15   13   15    6    2    1    0

1976                             --------|-------
   616  37 38 23  2      5   15   29   14   11   17    6    2    1    0

LARGE CITY NORMS                   ------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                    SOUTHWEST SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO      GRADE 12      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                  ------------|---------
 1173  17 25 32 26      4    7   11   10    9    9   13   15   13    8

1972                               -------------|---------
 1304  20 29 29 22      5    9   12   12   12    9   10   16   12    5

1973                              ----------|------------
  936  23 32 27 18      7   11   11   11   15    7   16    9    8    6

1974                                  ------------|---------
  891  17 29 29 25      4    8   10   13   11    8   11   14   13    8

1975                               -----------|-----------
  830  21 30 28 21      5    9   14   12   11    9   11   13   10    6

1976                               -----------|----------
  687  19 35 25 21      6    8   12   13   15    8   10   13   10    5

------------------------------------------------------------------------
                ETHI BLACK      GRADE 12      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         ---|------
   45  53 36  2  9     13   31   18   18    9    0    2    2    7    0

1972                       -----|------
  236  54 34 10  2     19   23   22   16    7    4    5    2    1    0

1973                     ------|------
  231  62 30  7  1     26   22   24   13    7    3    3    1    0    0

1974                       -----|---------
  364  51 35 12  2     15   23   24   18    6    5    4    4    1    0

1975                         ---|---------
  445  54 38  7  1     13   26   27   17   11    3    3    2    0    0

1976                       -----|------
  587  56 37  5  1     15   28   25   16    9    3    1    2    1    0

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                       SOUTHWEST SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM      GRADE 12       MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         ------|--------
   60  45 37 15  3     12   20   27   12   12    7    3    7    2    0

1972                         ---|---------
  139  50 34 14  2     17   22   20   18    7    4    5    6    1    0

1973                       ----|------
  142  56 35  6  3     20   29   18   15    9    2    4    1    1    1

1974                         ------|--------
  182  42 41 12  4     14   18   21   21   10    7    4    4    1    0

1975                         ------|------
  193  48 39 10  3     11   23   24   18   12    4    3    3    2    0

1976                         ------|--------
  176  41 40 15  4     10   18   22   20   11    7    5    5    2    1

------------------------------------------------------------------------
                ETHI TOTAL      GRADE 12       MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                               -------------|----------
 1317  20 26 29 25      5    9   12   10    9    8   12   14   12    7

1972                            -----------|-------------
 1722  27 30 25 17      8   12   14   13   11    8    9   13    9    4

1973                         ----------|------------
 1334  34 32 21 14     12   14   14   12   13    6   12    7    5    4

1974                            ---------|-------------
 1464  29 32 22 17      8   13   15   15   10    7    9   10    9    5

1975                            ---------|----------
 1495  35 34 19 13      8   16   19   14   11    6    7    9    6    4

1976                         --------|----------
 1472  37 36 16 11     10   17   18   15   12    6    6    8    6    3

LARGE CITY NORMS                  -----------|-----------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
              ETH: ANGLO      GRADE  9      SOCIAL STUDIES
---------------------------------------------------------------------------
      QUARTILE                                PERCENTILES
FALL  DISTRIBUTION      0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                              ------------|-----------
 1720   32 25 25 18       14   12   13    6   12   11   11    5   10    5

1972                               -----------|-----------
 1510   29 28 27 16        8   15   14    7   13   12   12    6    9    4

1973                               -------------|---------
 1305   27 29 29 15        7   13   14    7   14   13   14    5    7    6

1974                               -------------|---------
 1151   27 30 26 17        8   14   13    8   15   11   11    6    9    5

1975                               ----------|------------
 1006   30 29 26 15        9   15   15    8   13   12   11    5    8    4

1976                               ----------|----------
  794   31 28 28 13       10   14   14    8   13   13   12    5    7    3

---------------------------------------------------------------------------
              ETH: BLACK      GRADE  9      SOCIAL STUDIES
---------------------------------------------------------------------------
      QUARTILE                                PERCENTILES
FALL  DISTRIBUTION      0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                          ------|-----
  639   59 30  9  2       21   27   22    8   11    6    3    0    2    0

1972                           -----|----------
  824   54 32 12  2       17   26   20    8   15    7    4    1    1    0

1973                          ------|-----
 1102   55 33 11  1       18   28   20   10   13    7    4    1    1    0

1974                          ------|----------
 1295   54 33 11  2       18   26   20   10   12    6    4    1    1    0

1975                           -----|----------
 1471   54 33 12  2       16   28   22    8   13    7    4    1    1    0

1976                          ------|----------
  634   58 25 14  3       21   28   15    8   11    8    5    2    2    1

LARGE CITY NORMS                    -------------|------------
        25 25 25 25       10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0   10   20   30   40   50   60   70   80   90  100
---------------------------------------------------------------------------
```

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                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO     GRADE  9        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                           -------------|--------------
 1720  28 30 19 23      17    7   10   10   14    7   10    9   12    5

1972                        -------|----------
 1510  43 39 16  2      22   13   17   14   16    8    7    3    0    0

1973                      ------|-----------
 1321  52 33 13  2      28   15   17   12   12    6    6    3    0    0

1974                           -----------|-------------
 1172  31 31 21 17      15    9   12    9   16    8   11    9    7    4

1975                         -----------|-------------
 1016  32 33 19 16      15   12   12   13   14    7   10    8    6    3

1976                           -----------|-----------
  794  29 35 21 15      13   10   11   14   15    9    9    8    8    3

-------------------------------------------------------------------------
                ETH: BLACK     GRADE  9        SCIENCE
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|--------
  639  57 35  6  2      27   18   19   14   12    3    3    2    1    0

1972                     ----|------
  824  70 28  3  0      41   19   18   13    7    2    1    0    0    0

1973                    -----|------
 1105  73 25  2  0      44   20   17   11    7    1    0    0    0    0

1974                      ---|---------
 1298  61 33  5  1      31   20   19   13   11    2    2    1    0    0

1975                      -----|-------
 1474  58 35  5  1      28   19   21   15   11    3    2    1    0    0

1976                      -----|---------
  633  60 33  6  2      31   18   19   11   13    2    4    2    1    0

LARGE CITY NORMS                   -----------|--------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

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                        SOUTHWEST SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------------
                   ETHI MEXAM      GRADE  9        SCIENCE
-----------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION      0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                         -----|--------
 224     60 29  8  4         37   17   13   16    8    5    2    3    0    0

1972                          ----|--------
 300     62 31  7  0         33   18   24   11    8    5    2    0    0    0

1973                         -----|-----
 311     70 26  4  0         42   20   14   10   10    3    1    0    0    0

1974                           ---|----------
 347     59 32  7  1         30   22   13   14   12    4    2    2    0    0

1975                          -----|------
 409     59 33  6  2         28   19   22   14    9    3    3    1    1    0

1976                            ------|--------
 401     50 38  9  3         21   17   20   16   14    6    2    3    1    0

-----------------------------------------------------------------------------
                   ETHI TOTAL      GRADE  9        SCIENCE
-----------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL    DISTRIBUTION      0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4       +....+....+....+....+....+....+....+....+....+....+

1971                            --------|-----------------
2651    38 31 15 16          21   10   13   11   13    6    7    7    8    3

1972                          -----|--------
2706    53 35 11  1          29   16   18   13   12    5    4    2    0    0

1973                         ----|--------
2779    63 29  8  1          36   18   16   12   10    4    3    2    0    0

1974                            ------|----------
2869    48 32 12  8          25   16   15   12   13    5    6    5    3    2

1975                            ------|--------
2939    49 34 10  6          24   17   18   14   12    5    5    4    3    1

1976                            ------|------------
1881    44 35 13  8          21   14   16   14   14    6    6    5    4    1

LARGE CITY NORMS                      ------------|-------------
        25 25 25 25          10   10   10   10   10   10   10   10   10   10

                          +....+....+....+....+....+....+....+....+....+....+
                          0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------------
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                         SOUTHWEST SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                    ETH: ANGLO       GRADE 12        SCIENCE
---------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                       ----------|---------
 1173  14 20 37 29        6    6    8    5    9    9   22   13   12   11

1972                         ---------|--------
 1304  42 40 17  0       21   15   18   11   17   13    5    0    0    0

1973                       --------|-------
  933  56 39  5  0       22   22   18   19   14    5    0    0    0    0

1974                                  ---------------|--------
  897  18 21 36 25        8    8    7    5   10   10   21   11   10   10

1975                                 -------------|---------
  835  21 24 34 22        9    9   11    6    9   10   18   12    9    6

1976                               ------------|-----------
  703  23 25 33 18       11    9   11    7   11   11   17   10    9    5

---------------------------------------------------------------------------
                    ETH: BLACK       GRADE 12        SCIENCE
---------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       --|---------
   45  62 27 11  0       40   20   16    4    9    4    4    2    0    0

1972                   ---|-------
  236  83 15  1  0       59   19   14    2    4    1    0    0    0    0

1973                   -|------
  236  92  8  0  0       63   23    8    4    1    0    0    0    0    0

1974                     -------|---------
  369  63 21 13  2       37   20   15    7    6    6    7    1    1    1

1975                    -----|-------
  446  72 19  8  1       45   24   11    7    5    4    3    1    1    0

1976                    -----|-------
  598  73 20  6  1       47   22   14    5    5    3    3    1    0    0

LARGE CITY NORMS                   -------------|------------
       25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
---------------------------------------------------------------------------
```

SOUTHWEST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
              ETHI HEXAM     GRADE 12        SCIENCE
-------------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                         --------|------------
    60 38 32 28  2      13   15   22    8   12    7   17    5    0    2

1972                   ---|-----
   139 82 17  1  0      55   22   12    5    5    1    0    0    0    0

1973                   ---|----
   142 88 11  1  0      57   24   11    4    4    1    0    0    0    0

1974                        -------|----------
   182 47 34 17  2      25   15   21    6   14    8    8    2    2    0

1975                      -----|-----------
   198 58 26 12  5      30   21   18    7    9    6    5    4    1    1

1976                     ------|---------
   185 59 23 16  2      32   21   16    8    6    8    8    2    1    0

-------------------------------------------------------------------------
              ETHI TOTAL     GRADE 12        SCIENCE
-------------------------------------------------------------------------
       QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                  --------------|--------
  1317 18 20 35 27       8    7    9    5    9    9   20   12   11   11

1972                      -------|---------
  1722 52 35 14  0      29   16   17    9   14   10    4    0    0    0

1973                     -----|--------
  1336 66 30  4  0      33   23   16   15   10    4    0    0    0    0

1974                         -------------|-------------
  1476 33 22 28 17      18   12   11    6   10    9   16    8    6    6

1975                       -----------|---------------
  1507 41 22 23 13      23   15   11    7    8    8   12    8    5    4

1976                     ----------|----------------
  1509 48 23 20  9      28   16   13    6    8    7   10    5    5    2

LARGE CITY NORMS                  -------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 2

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2632	2512	2419	2363	2523	2571
AVERAGE DAILY ATTENDANCE	2276	2212	2053	1998	2081	2270
INDEX OF AVERAGE DAILY ATTENDANCE	86.5	88.1	84.9	84.6	82.5	88.3
AVERAGE DAILY TRANSACTIONS	6.5	7.0	7.4	7.4	7.8	6.4
INDEX OF AVERAGE DAILY TRANSACTIONS	0.25	0.28	0.31	0.31	0.31	0.25
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.01	-.01	-.02	-.04
ENROLLMENT BY ETHNICITY						
% OTHER	70.0	59.8	50.2	43.8	38.3	37.8
% BLACK	9.0	15.3	22.5	28.8	32.3	33.7
% MEXICAN-AMERICAN	19.4	23.5	26.0	26.6	27.8	27.6
% AMERICAN INDIAN	1.3	1.2	1.0	0.5	1.1	0.8
% ORIENTAL	0.3	0.2	0.3	0.2	0.5	0.1

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 4

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2640	2627	2523	2493	2503	2209
AVERAGE DAILY ATTENDANCE	2291	2323	2146	2114	2067	1957
INDEX OF AVERAGE DAILY ATTENDANCE	86.8	88.4	85.1	84.8	82.6	88.6
AVERAGE DAILY TRANSACTIONS	6.3	7.1	7.5	7.7	7.7	5.4
INDEX OF AVERAGE DAILY TRANSACTIONS	0.24	0.27	0.30	0.31	0.31	0.24
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.00	-.01	-.01	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	70.6	66.8	55.5	44.6	36.5	36.0
% BLACK	10.5	13.5	21.8	29.4	34.5	35.5
% MEXICAN-AMERICAN	17.2	18.8	21.8	24.6	27.3	27.4
% AMERICAN INDIAN	1.1	0.8	0.6	0.9	1.0	0.7
% ORIENTAL	0.6	0.2	0.3	0.4	0.7	0.4

*** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 6

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2523	2459	2476	2532	2427	2293
AVERAGE DAILY ATTENDANCE	2201	2185	2115	2152	2006	2036
INDEX OF AVERAGE DAILY ATTENDANCE	87.2	88.9	85.4	85.0	82.6	88.8
AVERAGE DAILY TRANSACTIONS	5.8	6.7	7.1	7.6	7.3	5.5
INDEX OF AVERAGE DAILY TRANSACTIONS	0.23	0.27	0.29	0.30	0.30	0.24
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.00	-.01	-.02	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	77.5	70.5	59.8	52.2	43.0	38.3
% BLACK	8.0	12.6	21.4	27.4	33.6	34.9
% MEXICAN-AMERICAN	13.0	15.6	17.7	19.4	22.1	25.2
% AMERICAN INDIAN	1.3	1.0	0.6	0.8	1.0	1.0
% ORIENTAL	0.3	0.3	0.4	0.2	0.3	0.5

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

ELEMENTARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	640	497	829	716	729
% FEMALE	****	90.5	90.9	91.2	89.9	90.6
% MALE	****	9.5	9.2	8.8	10.1	9.4
AGE						
% LESS THAN 26 YEARS OLD	****	13.2	15.6	15.4	17.3	13.5
% 26 - 35 YEARS OLD	****	28.2	31.3	34.4	31.9	34.6
% 36 - 45 YEARS OLD	****	21.8	18.6	18.2	20.6	20.2
% 46 - 55 YEARS OLD	****	18.6	16.8	15.1	16.0	17.3
% 56 - 65 YEARS OLD	****	16.6	15.2	13.9	12.4	11.6
% OVER 65 YEARS OLD	****	1.5	3.1	3.0	1.5	3.1
ETHNICITY						
% WHITE	****	69.9	72.1	68.5	63.8	64.2
% BLACK	****	27.2	24.6	27.2	31.4	28.8
% MEXICAN-AMERICAN	****	2.7	3.0	4.2	4.6	7.0
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	33.9	38.6	37.4	36.0	37.7
% 6 - 10 YEARS OF EXPERIENCE	****	20.9	18.1	21.0	22.2	20.4
% 11 - 15 YEARS OF EXPERIENCE	****	13.3	12.1	12.3	14.1	15.7
% 16 - 20 YEARS OF EXPERIENCE	****	9.4	8.6	9.6	11.2	9.6
% 21 - 40 YEARS OF EXPERIENCE	****	21.7	20.3	18.2	15.9	16.1
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.0	0.2	0.0	0.0	0.0
% WITH BACHELORS DEGREE ONLY	****	73.3	74.1	69.6	67.5	65.0
% WITH MASTERS DEGREE	****	26.7	25.7	30.4	32.5	34.9
% WITH DOCTORATE DEGREE	****	0.0	0.0	0.0	0.0	0.1

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 8

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2424	2568	2354	2541	2648	3259
AVERAGE DAILY ATTENDANCE	2038	2097	1945	2159	2287	3026
INDEX OF AVERAGE DAILY ATTENDANCE	84.1	81.6	82.6	85.0	86.4	92.8
AVERAGE DAILY TRANSACTIONS	4.8	4.9	4.7	4.9	4.5	4.1
INDEX OF AVERAGE DAILY TRANSACTIONS	0.20	0.19	0.20	0.19	0.17	0.13
INDEX OF SCHOOL ATTRACTION	-.05	-.03	-.03	-.02	-.02	-.03
ENROLLMENT BY ETHNICITY						
% OTHER	72.9	66.0	57.4	50.7	41.3	29.0
% BLACK	13.8	19.3	25.9	32.1	39.2	52.8
% MEXICAN-AMERICAN	12.3	13.7	15.4	16.2	18.4	17.3
% AMERICAN INDIAN	0.7	0.7	0.9	0.7	0.7	0.7
% ORIENTAL	0.3	0.3	0.4	0.3	0.5	0.2
NUMBER OF DROPOUTS PER 100	****	0.5	1.6	0.8	0.3	****
% OTHER	****	0.5	1.0	0.4	0.2	****
% BLACK	****	0.0	0.1	0.1	0.0	****
% MEXICAN-AMERICAN	****	0.0	0.5	0.3	0.2	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 9

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2481	2491	2643	2520	2533	2260
AVERAGE DAILY ATTENDANCE	2090	2031	2196	2147	2186	2045
INDEX OF AVERAGE DAILY ATTENDANCE	84.2	81.5	83.1	85.2	86.3	90.5
AVERAGE DAILY TRANSACTIONS	4.9	4.8	5.1	4.8	4.3	3.3
INDEX OF AVERAGE DAILY TRANSACTIONS	0.20	0.19	0.19	0.19	0.17	0.15
INDEX OF SCHOOL ATTRACTION	-.05	-.03	-.03	-.02	-.02	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	77.4	68.1	68.0	51.0	44.4	43.3
% BLACK	11.6	17.6	19.4	32.3	37.3	32.7
% MEXICAN-AMERICAN	10.2	13.2	11.7	15.6	17.3	22.5
% AMERICAN INDIAN	0.5	0.8	0.8	0.9	0.6	0.9
% ORIENTAL	0.3	0.3	0.1	0.2	0.5	0.6
NUMBER OF DROPOUTS PER 100	****	0.5	1.5	0.8	0.3	****
% OTHER	****	0.5	0.9	0.4	0.2	****
% BLACK	****	0.0	0.1	0.1	0.0	****
% MEXICAN-AMERICAN	****	0.0	0.4	0.3	0.2	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

GRADE 12

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	1974	1829	1770	1769	1678	1660
AVERAGE DAILY ATTENDANCE	1579	1454	1396	1378	1385	1514
INDEX OF AVERAGE DAILY ATTENDANCE	80.0	79.5	78.9	77.9	82.5	91.2
AVERAGE DAILY TRANSACTIONS	6.7	6.0	5.9	5.9	3.5	2.4
INDEX OF AVERAGE DAILY TRANSACTIONS	0.34	0.33	0.33	0.34	0.21	0.14
INDEX OF SCHOOL ATTRACTION	-.17	-.21	-.22	-.21	-.09	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	85.8	75.3	70.9	60.9	56.3	47.5
% BLACK	6.6	14.8	17.7	25.9	28.7	39.1
% MEXICAN-AMERICAN	6.5	8.9	10.4	12.6	13.9	12.4
% AMERICAN INDIAN	0.9	0.6	0.8	0.4	0.8	0.6
% ORIENTAL	0.2	0.4	0.2	0.2	0.3	0.4
NUMBER OF DROPOUTS PER 100	****	5.5	10.8	10.0	4.2	****
% OTHER	****	3.9	6.3	5.6	2.0	****
% BLACK	****	0.7	2.2	2.3	1.5	****
% MEXICAN-AMERICAN	****	0.9	2.3	2.1	0.7	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

SOUTHWEST SUBDISTRICT SUMMARY

SECONDARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	578	452	689	565	631
% FEMALE	****	57.5	60.3	59.7	60.0	58.3
% MALE	****	42.5	39.7	40.3	40.0	41.7
AGE						
% LESS THAN 26 YEARS OLD	****	19.4	17.9	15.2	14.1	10.3
% 26 - 35 YEARS OLD	****	39.8	44.0	46.1	43.3	44.6
% 36 - 45 YEARS OLD	****	19.5	16.9	17.4	22.2	23.4
% 46 - 55 YEARS OLD	****	14.3	13.6	13.9	14.1	15.2
% 56 - 65 YEARS OLD	****	5.8	6.1	5.1	5.5	5.6
% OVER 65 YEARS OLD	****	1.5	2.3	2.3	0.6	1.0
ETHNICITY						
% WHITE	****	73.6	74.7	74.0	68.9	65.2
% BLACK	****	24.1	23.2	22.4	27.4	30.4
% MEXICAN-AMERICAN	****	2.1	2.3	3.8	3.6	4.2
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	43.1	42.7	41.4	35.3	38.2
% 6 - 10 YEARS OF EXPERIENCE	****	26.6	26.6	26.3	27.2	25.0
% 11 - 15 YEARS OF EXPERIENCE	****	12.6	11.9	13.4	18.0	17.6
% 16 - 20 YEARS OF EXPERIENCE	****	7.6	7.4	7.9	8.8	8.8
% 21 - 40 YEARS OF EXPERIENCE	****	9.1	9.9	9.4	10.4	9.9
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.5	1.0	0.7	0.4	0.3
% WITH BACHELORS DEGREE ONLY	****	65.2	65.3	61.0	56.3	59.1
% WITH MASTERS DEGREE	****	34.3	33.9	38.0	43.1	40.4
% WITH DOCTORATE DEGREE	****	0.2	0.0	0.3	0.3	0.1

**** DATA NOT AVAILABLE

East Oak Cliff Subdistrict

1. In reading, median scores remained below norm, closing in 1976 at or very near their percentile ranks in 1971. Performance in grades 2 and 4 was somewhat higher than in the upper grades. There was no evidence of improvement over time within grades. Across grades, local growth trailed that expected of low-scorers.

2. In language, median scores remained below norm, closing in 1976 at or very near their percentile ranks in 1971. Performance in grade 2 was somewhat higher than in the upper grades. There was no evidence of improvement over time within grades. Across grades, local growth trailed that expected of low-scorers.

3. In mathematics, median scores remained below norm, closing in 1976 at or below their percentile ranks in 1971. Performance in grades 2, 9, and 12 was notably higher than in the three remaining grades. There was no evidence of improvement over time within grades. Across grades, local growth trailed that expected of low-scorers.

4. In social studies, median scores were below norm, holding steady in grade 9 at percentile 20 and in grade 12 at percentile 10. Across grades, local growth from grade 9 in 1973 to grade 12 in 1976 trailed that expected of low-scorers.

5. In science, median scores were below norm, holding steady in grade 9 at percentile 16 and varying in grade 12 near percentile 10.

6. The Varying number of students tested each year serves as an index of enrollment trends and as an influence on achievement trends. The number of test-takers increased in grade 2 by 12% and in grade 9 by 17% since 1971. In grade 12 the number has remained steady. In the three remaining grades the number has declined, mostly before 1974. In the upper grades (8, 9, and 12) the number of test-takers was notably lower than actual enrollment counts, a phenomenon that held true across all subdistricts.

7. Since 1972 the number of elementary teachers increased by 10%. The number of Anglo elementary teachers decreased from 65% to

56%, allowing for an increase in black teachers from 35% to 43%. This subdistrict currently claims the smallest percentage of Anglo elementary teachers in the District. Also since 1972 the number of secondary teachers has decreased by 4%. The percentage of Anglo secondary teachers has decreased from 63% to 46%, allowing for an increase in black teachers from 35% to 51%. This subdistrict currently claims the smallest number of secondary teachers and the lowest percentage of Anglo secondary teachers in the District. It also claims the highest percentage of very young teachers at both levels, elementary and secondary.

8. Since 1972 the percentage of elementary teachers who were less than 26 years old decreased from 36% to 16%. Similarly, the percentage of elementary teachers having less than six years of experience decreased from 57% to 49%. These changes were accompanied by a decrease in the percentage of elementary teachers holding only a bachelor's degree from 82% to 67% and by an increase in those holding a master's degree from 18% to 33%.

   Also since 1972 the percentage of secondary teachers who were less than 26 years old decreased from 36% to 13%. Similarly, the percentage of secondary teachers having less than six years of experience decreased from 64% to 48%. These changes were accompanied by a decrease in the percentage of secondary teachers holding only a bachelor's degree from 80% to 62% and by an increase in those holding a master's degree from 20% to 37%.

   This subdistrict currently claims the highest percentage of least-experienced teachers and the lowest percentage of teachers holding a master's degree.

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO     GRADE  2        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                                -----------|---------
   39  21 28 28 23       8    5   10   15   10   13   15    5   13    5

1973                       -------|--------------
   10  40 30 20 10      20   20   10   10   10   10    0   10    0   10

1974                       -----------|------------
   12  42 25 17 17      17   17    8   17    8    8    0    8    0   17

1975                       ---------------|----------
   23  26 39 22 13       4   22    9    9   22    9   13    4    9    0

1976                                      ---|-
    4   0 75  0 25       0    0    0    0   75    0    0    0    0   25

-------------------------------------------------------------------------
                ETH: BLACK     GRADE  2        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                           --------|-----------
 1747  34 33 21 11      11   16   14   14   12    9    9    5    6    2

1973                         --------|------------
 1979  40 28 19 13      15   17   15   13    9    9    8    6    6    3

1974                     ------|-----------------
 1918  56 18 15 11      29   19   13    4   10    4    6    8    5    3

1975                       -------|--------------------
 1772  45 21 18 16      19   15   16    5   11    4    8   10    8    5

1976                       -------|------------------
 2010  47 19 19 15      20   17   14    4   10    6    6   10    8    5

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          -------|------------
   37  41 30 16 14     11   22   19    8   11   14    3    0    5    8

1973                       ---------|-------
   44  45 34 14  7     20   23   11   18    7    2   11    0    2    5

1974                         -----|--
   40  78 13 10  0     30   30   20    0   10    5    3    3    0    0

1975                      -------------|-----------------
   54  46 24 17 13     22   17    7    4   20    2    9    9    6    4

1976                       -----|--------------------
   37  54 16 27  3     22   24   19    0    5    5   11   11    3    0

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                           ---------|------------
 1830  34 33 21 11     11   16   14   14   12   10    9    5    6    2

1973                         ---------|------------
 2038  40 29 19 13     15   17   15   13    9    9    8    6    6    3

1974                         ------|-----------------
 1972  56 18 15 11     28   19   13    4   10    4    6    7    5    3

1975                           -------|--------------------
 1862  45 21 18 16     19   15   16    5   11    4    8   10    8    5

1976                           -------|------------------
 2053  47 19 19 15     20   17   14    4   10    6    6   10    8    5

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
             ETHI ANGLO     GRADE  4         READING
-------------------------------------------------------------------------
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                       -------|-----------------
  17   53 18 12 18   35    6   12   12    6   12    0    0   12    6

1972                         -------|-----
  75   53 36  8  3   29   17   25    9    8    5    3    0    1    1

1973                     ----------------
  24   67 33  0  0   58    8    4   21    8    0    0    0    0    0

1974                         --|-----------
  16   69 19  6  6   19   38   13   13    6    0    6    6    0    0

1975                       ----|-------------
   6   67 17  0 17   33   17   17   17    0    0    0    0   17    0

1976                       --------|-------------
  16   56 19 13 13   25   13   19    6   13    0    6   13    0    6

-------------------------------------------------------------------------
             ETHI BLACK     GRADE  4         READING
-------------------------------------------------------------------------
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                         -----|----------
2711   55 31 11  3   25   20   18   13    9    5    4    2    2    1

1972                          ------|-------
2083   53 32 12  2   22   21   20   16    7    6    3    3    1    0

1973                         -----|--------
1896   57 29 12  2   26   21   18   14    7    6    4    2    1    0

1974                      ------|----------
1920   66 20 12  3   31   22   13   13    7    6    4    3    1    0

1975                       -----|------------
1737   64 19 13  4   31   21   13   12    7    5    6    4    1    1

1976                       --------|----------
1910   58 24 13  5   28   20   12   14    8    5    5    5    2    1

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25   10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    EAST OAK CLIFF SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                  ETH: MEXAM     GRADE  4        READING
------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-----
  61   56 30 15  0     21   26   18   11    8   10    5    0    0    0

1972                     ----|----------
  55   67 20 11  2     38   18   15   13    4    5    5    0    2    0

1973                     --|-----
  29   74 21  0  0     48   21   17    7    7    0    0    0    0    0

1974                      -------|---------
  44   55 27 14  5     16   27   11   18    9   11    2    2    2    0

1975                   ------|-------
  33   73 15 12  0     33   21   18   12    3    3    6    3    0    0

1976                   -----|-----------
  43   67 19  7  7     40   21    7   12    7    0    5    9    0    0

------------------------------------------------------------------------
                  ETH: TOTAL     GRADE  4        READING
------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|----------
2794   55 31 11  3     25   20   18   13    9    6    4    2    2    1

1972                       ------|-------
2223   54 32 12  2     22   21   20   15    7    6    3    3    1    0

1973                      -----|--------
1953   58 29 11  2     27   21   18   14    7    6    4    2    1    0

1974                     ----|----------
1982   65 20 12  3     30   22   13   13    7    6    4    3    1    0

1975                     ----|------------
1782   64 19 13  4     31   21   13   12    7    5    5    4    1    1

1976                     -------|----------
1974   58 23 13  6     28   20   12   14    8    5    5    5    2    1

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                 EAST OAK CLIFF SUBDISTRICT
         INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
               ETH: ANGLO       GRADE  6          READING
------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ---------|--------
   41  49 39  7  5    27   17   12    7   24    2    5    0    2    2
1972                    ------|------------
   19  63 16 16  5    32   21   16    5    5    5    0   11    0    5
1973                    ---------|---------------
   15  47 27 20  7    27   13   20   13    0    7   13    0    7    0
1974                  -----------|--------------
   11  45 27 18  9    27    9   18    9    9    9    9    0    0    9
1975                |----
    6 100  0  0  0    83   17    0    0    0    0    0    0    0    0
1976                 ------|-------
    8  50 38  0 13    38   13   25   13    0    0    0   13    0    0

------------------------------------------------------------------------
               ETH: BLACK       GRADE  6          READING
------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                   -------|--------
 2351  60 25 10  4    33   18   14   12    8    5    4    2    2    1
1972                   -----|----------
 2046  63 23 10  4    35   21   13    9    8    5    4    3    2    1
1973                   -----|-----------
 2069  63 24 10  3    37   21   11    9    8    6    3    3    2    1
1974                ---|--------
 2008  75 16  7  1    54   15   11    8    3    4    3    1    1    0
1975                ---|----------
 2013  71 17 10  2    50   15   12    7    4    4    4    2    1    0
1976                -----|--------
 2153  69 18 10  3    48   15   12    7    5    4    4    2    1    0
LARGE CITY NORMS                ------------|------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                        EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                  ETH: MEXAM     GRADE  6        READING
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    --|------
   52  81 15  4  0     54   23    8    2   10    4    0    0    0    0

1972                    ---|-----
   46  80 11  9  0     48   26    7    7    4    4    4    0    0    0

1973                    -----|-------
   34  68 21 12  0     38   21   21    0    9    6    6    0    0    0

1974                  --|---------
   40  80 15  5  0     60    8   23    3    3    5    0    0    0    0

1975                  ---|---------
   31  81 16  3  0     58   13   13   10    3    0    3    0    0    0

1976                  --------|--------------
   31  58 23  6 13     35   16   13    6   10    3    3   10    3    0

--------------------------------------------------------------------------
                  ETH: TOTAL     GRADE  6        READING
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ------|---------
 2505  61 25 10  4     34   19   14   12    8    5    4    2    2    1

1972                     -----|----------
 2125  63 23 10  4     36   21   13    9    8    5    4    3    2    1

1973                     -----|-----------
 2122  63 24 10  3     37   20   11    9    8    6    3    3    2    1

1974                  ---|---------
 2062  75 16  7  1     54   14   11    8    3    4    3    1    1    0

1975                  ---|----------
 2056  71 17 10  2     50   15   12    7    4    4    4    2    1    0

1976                   ----|---------
 2202  69 18 10  3     48   15   13    7    5    4    4    2    1    0

LARGE CITY NORMS                  -------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ----------|-------------
   46  48 26 15 11     30   15    9   11    9    7    9    9    0    2

1972                     ------|---------
   24  63 29  8  0     29   33    4   21    4    0    8    0    0    0

1973                     ---|-----
   39  79  8  3 10     38   31   13    5    0    3    0    3    5    3

1974                   ---|----------
   47  72 19  6  2     53   19    2   11    6    2    2    2    2    0

1975                         ------|-----------
    5  40 20 20 20     20   20   20    0    0   20    0   20    0    0

1976                         -----------------------|---------
   14  29 14 29 29     14   14    0    7    7    0   21   14   14    7

------------------------------------------------------------------------
                ETHI BLACK     GRADE  8        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|--------
 2468  70 20  8  1     45   20   12    7    6    4    3    2    1    0

1972                    ---|--------
 1711  73 18  7  2     50   19   10    7    5    4    3    1    1    0

1973                   ---|-------
 1836  76 16  7  2     51   20   10    7    4    3    3    2    1    0

1974                   ----|----
 1740  81 15  4  0     49   25   12    6    3    2    2    1    0    0

1975                   ---|-----
 1892  80 15  3  1     53   23   11    6    3    2    1    0    0    0

1976                   ----|------
 2063  76 16  6  1     48   22   11    7    3    3    2    1    1    0

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                      EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                    ETH: MEXAM      GRADE  8        READING
--------------------------------------------------------------------------
         QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    --|----
   55   85 13  2  0     60   20    7    9    2    0    2    0    0    0

1972                    ----|----
   48   77 17  4  2     38   35   15    4    2    0    4    0    2    0

1973                    ---|-----
   43   81 16  0  2     51   30   12    5    0    0    0    2    0    0

1974                    ---|----
   28   82 14  4  0     50   25   11    7    4    4    0    0    0    0

1975                    ----|----------
   19   74 16 11  0     47   21    5   11    5    5    5    0    0    0

1976                     ---|------------
   33   64 33  3  0     42   18    9   12   15    3    0    0    0    0

--------------------------------------------------------------------------
                    ETH: TOTAL      GRADE  8        READING
--------------------------------------------------------------------------
         QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ----|--------
 2605   70 20  8  2     45   20   12    7    6    4    4    2    1    0

1972                    ---|--------
 1792   73 18  7  2     49   19   10    7    5    4    3    1    1    0

1973                    ---|-------
 1924   76 16  6  2     50   20   10    6    4    3    3    2    1    0

1974                    ----|----
 1820   80 15  4  0     49   25   11    6    3    2    2    1    0    0

1975                    ---|-----
 1919   80 15  4  1     53   23   11    6    3    3    1    0    0    0

1976                    ----|------
 2123   76 16  6  2     48   22   11    7    3    3    2    1    1    0

LARGE CITY NORMS                  -------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                  ETH: ANGLO      GRADE  9         READING
----------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                         ---------|-----------------
   22 36 23 32  9       23    9    5   14    9    0   27    5    9    0

1972                           ------|--------
  167 46 47  5  1       11   25   19   16   23    2    2    1    0    1

1973                          ----|----------
   12 50 25 17  8        8   33    8   17    8    8    8    0    8    0

1974                          ---|--------
   21 67 19  0 14       24   38   10    5   10    0    0    5    5    5

1975                         ---|-------
   10 70 20  0 10       20   40   10   10   10    0    0    0    0   10

1976                               -|---------
    2 50 50  0  0        0    0   50    0   50    0    0    0    0    0

----------------------------------------------------------------------------
                  ETH: BLACK      GRADE  9         READING
----------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                        -----|------
 1457 69 24  5  2       26   31   17   12    7    2    3    1    1    0

1972                        ----|-------
 1685 71 23  5  1       27   31   17   11    8    2    3    1    1    0

1973                        ----|-----
 1643 72 23  4  1       27   34   16   12    6    2    1    1    1    0

1974                        ----|-----
 1695 72 22  5  1       27   33   17   11    7    2    2    1    1    0

1975                        ----|-----
 1812 73 22  4  1       27   34   16   10    7    2    2    1    1    0

1976                        ----|-----
 1772 72 23  4  1       28   33   16   12    7    1    2    1    0    0

LARGE CITY NORMS                    ------------|------------
      25 25 25 25       10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
----------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------------
                         ETHI MEXAM     GRADE  9        READING
---------------------------------------------------------------------------------
      QUARTILE                                     PERCENTILES
FALL  DISTRIBUTION            0    10   20   30   40   50   60   70   80   90   100
     N   1  2  3  4           +....+....+....+....+....+....+....+....+....+....+

1971                                ----|----------
    34  62 26  9  3             24   26   12   15   12    3    3    3    3    0

1972                                   --|-----
    38  53 42  5  0             18   26   18   21   11    3    0    3    0    0

1973                                  --|---
    22  82 14  5  0             14   41   41    0    0    5    0    0    0    0

1974                               ---|----
    23  83 17  0  0             30   43   17    4    4    0    0    0    0    0

1975                               ----|----
    24  92  4  4  0             29   33   29    0    4    0    0    4    0    0

1976                               ----|----
     7  86 14  0  0             29   43   14    0   14    0    0    0    0    0

---------------------------------------------------------------------------------
                         ETHI TOTAL     GRADE  9        READING
---------------------------------------------------------------------------------
      QUARTILE                                     PERCENTILES
FALL  DISTRIBUTION            0    10   20   30   40   50   60   70   80   90   100
     N   1  2  3  4           +....+....+....+....+....+....+....+....+....+....+

1971                               -----|------
  1529  68 24  6  2             26   30   17   12    7    2    3    2    1    0

1972                               ----|-------
  1900  68 26  5  1             26   30   17   11   10    2    3    1    0    0

1973                               ----|-----
  1692  72 23  4  1             27   34   16   12    6    2    1    1    1    0

1974                               ----|-----
  1754  72 22  5  1             27   34   17   10    7    2    2    1    1    0

1975                               ----|-----
  1854  73 22  4  1             27   34   17   10    7    2    2    1    1    0

1976                               ----|-----
  1792  72 23  4  1             28   33   16   11    7    1    2    1    0    0

LARGE CITY NORMS                           ------------|------------
        25 25 25 25             10   10   10   10   10   10   10   10   10   10

                              +....+....+....+....+....+....+....+....+....+....+
                              0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETHI ANGLO     GRADE 12        READING
-----------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  |----
    4  75 25  0  0     75    0    0   25    0    0    0    0    0    0

1972                    ------------------|
    5  40 40  0 20     40    0    0    0   40    0    0   20    0    0

1973                   -|----
   14 100  0  0  0     64   36    0    0    0    0    0    0    0    0

1974                     -----|---------------
    7  57 29 14  0     43   14   14    0   14   14    0    0    0    0

1976                                            |-
    1   0 0100  0      0    0    0    0    0  100    0    0    0    0

-----------------------------------------------------------------------
                ETHI BLACK     GRADE 12        READING
-----------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|--------
  850  74 17  7  1     45   24    9    8    5    5    2    1    1    0

1972                   --|--------
  518  80 13  6  1     52   20    9    7    5    3    2    1    0    1

1973                  -|------
  585  86 10  3  0     64   15   10    4    4    2    1    0    0    0

1974                   ---|------
  848  79 14  6  1     50   24    8    5    6    4    2    1    1    0

1975                   --|------
  804  81 12  6  1     53   22    8    6    3    3    2    1    0    0

1976                  ---|-----
  780  82 15  3  1     57   20    9    7    4    1    1    1    0    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------
                 ETHI MEXAM     GRADE 12        READING
--------------------------------------------------------------------------
          QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
   N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     |---
     4  75 25  0  0     50   25    0    0   25    0    0    0    0    0

1972                              --------|-------
     3  33 33 33  0      0    0   33    0   33   33    0    0    0    0

1973                   |--------------------------
     4  50  0 50  0     50    0    0    0    0   50    0    0    0    0

1974                   |-
     2 100  0  0  0    100    0    0    0    0    0    0    0    0    0

1975                     |-------------
     3  67 33  0  0     67    0    0   33    0    0    0    0    0    0

1976                      -|-------------
     2  50 50  0  0     50    0    0   50    0    0    0    0    0    0

--------------------------------------------------------------------------
                 ETHI TOTAL     GRADE 12        READING
--------------------------------------------------------------------------
          QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
   N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|---------
   861  74 17  7  1     45   24    9    9    5    5    2    1    1    0

1972                   --|---------
   528  79 13  6  2     52   20    9    7    5    3    2    1    0    1

1973                  -|-------
   627  87 10  3  0     65   15    9    4    3    3    1    0    0    0

1974                   ---|------
   858  79 14  6  1     50   24    8    5    6    4    2    1    1    0

1975                   --|------
   807  81 12  6  1     53   22    8    6    3    3    2    1    0    0

1976                  ---|-----
   784  82 15  3  1     57   20    9    7    4    1    1    1    0    0

LARGE CITY NORMS                  ------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

```
                  EAST OAK CLIFF SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                   ETHI ANGLO     GRADE  2          LANGUAGE
---------------------------------------------------------------------------
       QUARTILE                             PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1972                                -------------|--------
    39  26 28 28 18       13    8    8   10   15   15    8   21    0    3

1973                     ----|-----------
    10  60 20 10 10       50    0   20   10    0    0    0   10    0   10

1974                         ---|----------
    12  58 17  0 25       42    8    8   17    0    0    0    0   17    8

1975                         -------|------------
    23  52 26  9 13       30    9   13    0   26    4    4    0    9    4

1976                          ---|--------
     4  50 25  0 25        0   25   25   25    0    0    0    0   25    0

---------------------------------------------------------------------------
                   ETHI BLACK     GRADE  2          LANGUAGE
---------------------------------------------------------------------------
       QUARTILE                             PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1972                          -----|-----------
  1748  53 28 13  6       25   22   14   13    8    6    5    4    3    1

1973                         ------|------------
  1978  54 27 13  7       28   19   13   13    9    6    5    4    3    2

1974                        --------|------------
  1918  56 22 11 11       28    9   19    9   13    5    3    5    5    4

1975                           -----|-----------------
  1774  52 21 10 16       24    8   20    7   14    4    4    5    8    6

1976                           -----|-----------------
  1988  51 22 11 16       24    8   19    9   13    5    4    5    8    6

LARGE CITY NORMS                     ------------|-------------
        25 25 25 25       10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90  100
---------------------------------------------------------------------------
```

```
                    EAST OAK CLIFF SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETHI MEXAM     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                            PERCENTILES
FALL    DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                      -------|----------
  37    54 24 16  5     35   14   14   11    5   11    5    3    0    3

1973                    -----|---------
  43    67 23  7  2     47   14    9   16    5    5    2    0    0    2

1974                     ---|-----------
  40    70 20 10  0     43    8   20    5   15    8    3    0    0    0

1975                           ----------|--------
  48    40 33 17 10     17    6   17    8   25    4    6    8    4    4

1976                        ---|--------
  36    64 22  6  8     19   22   22   11   11    0    3    6    6    0

-------------------------------------------------------------------------
                  ETHI TOTAL     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                            PERCENTILES
FALL    DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                        -----|------------
1831    53 28 13  6     25   22   13   12    9    6    6    4    3    1

1973                      -------|----------
2036    54 27 12  7     29   18   13   13    8    6    5    4    3    2

1974                       -------|------------
1972    57 22 11 11     29    9   19    9   13    5    3    5    5    3

1975                         -----|-----------------
1858    52 22 10 16     24    8   20    7   15    4    4    5    8    6

1976                         -----|----------------
2030    51 22 11 16     24    8   19    9   13    5    4    5    8    6

LARGE CITY NORMS                   ------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------------
                  ETHI ANGLO     GRADE  4        LANGUAGE
-------------------------------------------------------------------------------
          QUARTILE                               PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|------
   17   59 24 12  6      41    18    18     0     6     0    12     0     0     6

1972                       ---|-------
   75   71 19  7  4      32    33    13     9     1     4     3     0     3     1

1973                    -----|-----
   24   83 17  0  0      42    29    21     8     0     0     0     0     0     0

1974                    ----|---------
   16   69 19  6  6      44    19    13     0    13     6     0     6     0     0

1975                     --|---
    6   83  0  0 17      50    33     0     0     0     0     0    17     0     0

1976                     ---------|--------------
   15   53 33  0 13      27    20     7    13    20     0     0     7     7     0

-------------------------------------------------------------------------------
                  ETHI BLACK     GRADE  4        LANGUAGE
-------------------------------------------------------------------------------
          QUARTILE                               PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|-------
 2711   63 26  9  3      28    25    15    13     7     5     3     1     1     0

1972                      ------|------
 2083   61 28  8  2      26    26    17    15     6     4     3     2     1     0

1973                      ------|------
 1896   63 27  9  2      28    26    16    13     7     6     3     1     1     0

1974                    -----|-------------
 1877   64 19 13  5      41    16    10     9     6     6     5     4     3     0

1975                    -----|-------------
 1714   64 17 15  4      41    16    10     9     5     8     6     3     2     0

1976                    ------|-----------
 1895   63 19 13  6      37    18    11    10     6     6     5     4     2     1

LARGE CITY NORMS                      ------------|------------
        25 25 25 25      10    10    10    10    10    10    10    10    10    10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10    20    30    40    50    60    70    80    90   100
-------------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                        ETHI MEXAM     GRADE  4        LANGUAGE
---------------------------------------------------------------------------
         QUARTILE                            PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                         ------|----
  61    62 34  3  0      23   26   21   21    5    0    3    0    0    0

1972                        -----|------
  55    71 22  5  2      27   35    9   22    0    4    2    0    2    0

1973                       -|--------
  29    76 24  0  0      52   14   24    7    3    0    0    0    0    0

1974                      --|------------
  44    70 11 11  7      57    9    7    7    2    7    5    0    7    0

1975                      -|--------
  33    76 18  6  0      52   21    3    9    9    3    3    0    0    0

1976                       ---|---------------
  42    57 21 17  5      36   17    7   14    5   14    2    5    0    0

---------------------------------------------------------------------------
                        ETHI TOTAL     GRADE  4        LANGUAGE
---------------------------------------------------------------------------
         QUARTILE                            PERCENTILES
FALL   DISTRIBUTION     0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-------
2794    63 26  9  3      28   25   15   13    7    5    3    1    1    1

1972                        ------|------
2223    62 28  8  2      26   26   17   15    6    4    3    2    1    0

1973                        ------|------
1953    63 26  9  2      29   26   16   13    7    6    2    1    1    0

1974                      -----|-------------
1939    64 18 13  5      42   16   10    9    6    6    5    4    3    0

1975                      -----|-------------
1759    65 17 15  4      41   16   10    9    6    8    6    3    2    0

1976                      ------|------------
1957    62 19 13  6      37   18   10   10    6    6    5    4    2    1

LARGE CITY NORMS                     -------------|-------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                        EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                      ETHI ANGLO      GRADE  6        LANGUAGE
---------------------------------------------------------------------------
           QUARTILE                              PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        --------|----------
   41    49 34 12  5     29   10   12   20   12    5    5    2    0    5

1972                    -----|------------
   19    68 21  5  5     47   21    5   11    5    0    5    0    5    0

1973                      -------|-------------
   15    60 20 13  7     27   27   13    0   13    7    7    0    0    7

1974                        -----------|------
   12    42 42 17  0     25   17    0   17   25    0    8    8    0    0

1975                   |-
    6 100  0  0  0     100    0    0    0    0    0    0    0    0    0

1976                    |----------------
    8    63 13 13 13     63    0    0   13    0    0    0   13   13    0

---------------------------------------------------------------------------
                      ETHI BLACK      GRADE  6        LANGUAGE
---------------------------------------------------------------------------
           QUARTILE                              PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -------|--------
 2351    64 21 11  4     34   18   17    9    7    5    4    3    2    1

1972                      -----|-----------
 2046    61 21 12  6     34   20   11    9    8    6    4    3    3    1

1973                      ----|----------
 2069    66 20 10  5     38   21   10    8    7    5    4    3    2    1

1974                    --|-----------
 1966    70 18 11  1     50   16    9    5    8    5    5    2    0    0

1975                   ----|------------
 2000    67 19 13  1     49   13   10    5    9    5    5    3    0    0

1976                   ----|-------------
 2141    65 19 12  3     48   13    9    6    9    6    5    3    1    0

LARGE CITY NORMS                   ------------|------------
         25 25 25 25     10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI MEXAM     GRADE  6        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|-----
   52  79 13  6  2     46   25   10    8    4    2    2    4    0    0

1972                   ---|-------
   46  76 17  4  2     48   24    9   11    2    2    0    4    0    0

1973                    -----|--------
   34  71 21  6  3     38   26    9   18    0    6    0    3    0    0

1974                  ---|---------
   39  77 15  8  0     54   21    5    8    5    0    5    3    0    0

1975                  ---|----------
   31  74 26  0  0     61   10   10    3   16    0    0    0    0    0

1976                  ---|-----------------------
   30  60 10 23  7     50   10    3    3    3    7   13    3    3    3

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  6        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    -------|-----------
 2505  64 21 11  4     34   18   17    9    7    5    4    3    2    1

1972                    -------|------------
 2125  62 21 12  6     35   20   11    9    8    6    4    3    3    1

1973                    ----|-------------
 2122  66 20 10  5     38   21   10    8    7    5    3    3    2    1

1974                  ---|---------------
 2020  70 18 11  1     50   16    9    5    8    5    5    2    0    0

1975                  ----|---------------
 2043  67 19 13  1     49   13   10    5    9    5    5    3    0    0

1976                  ----|----------------
 2189  65 19 13  3     48   13    9    6    8    6    5    3    1    0

LARGE CITY NORMS                   -------------|---------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                         EAST OAK CLIFF SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------
                    ETH: ANGLO      GRADE  8        LANGUAGE
----------------------------------------------------------------------
          QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ------|---------------------
   46  52 20 17 11     39   11    4    9    9    2    4   11    9    2

1972                    --|-----
   24  75 21  0  4     33   38    4    8   13    0    0    4    0    0

1973                    -----|-------
   39  72 15  8  5     31   26   21    3    8    5    0    3    5    0

1974                  |-----------
   47  79  9 13  0     70    4    6    0    6    6    4    2    0    0

1975                  ----------|---------------
    6  50 17 33  0     33    0   17   17    0   17    0   17    0    0

1976                    --------------------|-----------
   14  29 21 36 14     29    0    0   14    7    7   14   21    0    7

----------------------------------------------------------------------
                    ETH: BLACK      GRADE  8        LANGUAGE
----------------------------------------------------------------------
          QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   -----|---------
 2468  66 21 10  3     39   19   13    9    7    5    3    2    1    1

1972                  ----|--------
 1711  72 18  7  3     44   19   14    7    6    4    2    2    2    1

1973                  ----|--------
 1836  71 18  8  3     45   20   11    8    5    3    3    2    1    1

1974                  --|--------
 1768  80 14  6  0     62   12    8    6    5    4    2    1    0    0

1975                  -|--------
 1876  79 14  6  0     66   10    7    7    4    4    2    0    0    0

1976                  ---|---------
 2045  73 17  8  2     58   12    7    7    7    4    2    2    1    0

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                ETHI MEXAM     GRADE  8        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    --|---------
   55  75 18  7  0     55   16    7    7    7    2    2    4    0    0

1972                    ------|-------
   48  60 29  6  4     38   15   21   15    2    6    0    2    2    0

1973                  -----|----------
   43  70 30  0  0     47   12   16   14   12    0    0    0    0    0

1974                  ---|----------
   27  74 26  0  0     56   15   19    4    7    0    0    0    0    0

1975                  |---------------
   20  70 15 15  0     60   10    0    5   10   15    0    0    0    0

1976                   --|--------------------
   33  67 12 21  0     64    0    6    3    6   12    6    3    0    0

-----------------------------------------------------------------------
                ETHI TOTAL     GRADE  8        LANGUAGE
-----------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ----|----------
 2605  66 21 10  3     40   19   13    9    7    5    3    3    1    1

1972                   ----|--------
 1792  71 18  7  3     44   19   14    7    6    4    2    2    2    1

1973                   ----|--------
 1924  72 19  7  3     45   20   12    8    5    3    3    2    1    1

1974                  --|--------
 1847  80 14  6  0     62   12    8    6    5    4    2    1    0    0

1975                  -|---------
 1905  79 15  6  0     55   10    7    7    4    4    2    0    0    0

1976                  ---|----------
 2103  73 17  8  2     58   12    7    7    6    5    2    2    1    0

LARGE CITY NORMS                 -------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

```
                     EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                 ETHI ANGLO      GRADE  9       LANGUAGE
------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-----------------
   22  55 18 18  9     23   14   18   14    5    5    5   14    0    5

1972                      ----|----
  167  78 18  2  1     38   25   19   12    3    1    0    2    0    1

1973                          ---|-----
   12  58 17  8 17      8   17   42    8    0    8    0    0   17    0

1974                      ------|-----
   18  61 22  6 11     33   11   28   11    0    0    6    6    0    6

1975                       ----|---------
   10  50 40  0 10     20   30    0   30   10    0    0   10    0    0

1976                                          |----
    2   0 50 50  0      0    0    0    0   50   50    0    0    0    0

------------------------------------------------------------------------
                 ETHI BLACK      GRADE  9       LANGUAGE
------------------------------------------------------------------------
         QUARTILE                          PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|--------
 1457  67 20 10  4     35   20   16   13    4    5    3    4    2    1

1972                      -----|--------
 1685  65 23  8  4     35   19   17   13    4    4    2    3    2    1

1973                      -----|-------
 1609  67 22  8  4     35   22   14   14    4    4    3    3    2    0

1974                      -----|-------
 1675  67 22  8  3     36   19   15   14    4    5    3    2    2    1

1975                      -----|-------
 1815  68 20  9  3     37   20   16   12    3    5    2    3    2    0

1976                      -----|-------
 1744  66 22  8  2     36   20   18   13    3    4    2    2    1    0

LARGE CITY NORMS                   ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: MEXAM     GRADE   9       LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     -----|-------------
   34  56 24 18  3     29   21   12    6   12    9    9    0    0    3

1972                     -----|-----
   38  68 24  3  5     29   21   32    5    5    3    0    5    0    0

1973                     ----|---
   23  78 17  4  0     35   22   26    9    4    4    0    0    0    0

1974                    --|-----------
   23  74 26  0  0     43   13   26    9    9    0    0    0    0    0

1975                    -----|---------
   25  68 20  8  4     36   24    8   16    4    8    0    0    4    0

1976                    -------|-------
    6  50 50  0  0     33    0   17   33   17    0    0    0    0    0

-------------------------------------------------------------------------
                ETH: TOTAL     GRADE   9       LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     -----|--------
 1529  66 20 10  4     34   20   16   12    4    5    3    4    2    1

1972                     -----|-------
 1900  66 22  7  4     35   20   17   13    4    4    2    3    2    1

1973                     -----|-------
 1659  67 22  8  4     34   22   15   14    4    4    3    3    2    0

1974                     -----|-------
 1730  67 22  8  3     37   19   16   14    4    5    3    2    2    1

1975                     -----|-------
 1858  67 21  9  3     37   20   16   12    3    5    2    3    2    0

1976                     -----|-------
 1763  68 22  8  2     36   20   18   13    3    4    2    2    1    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                      EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO    GRADE 12        LANGUAGE
------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                 ---|--
    4 100  0  0  0    50   50    0    0    0    0    0    0    0    0

1972                  --------------|-----
    5  40 40  0 20    40    0    0   20   20    0    0   20    0    0

1973                 -|-------------
   14  64 36  0  0    50   14   21    7    7    0    0    0    0    0

1974                  --------|---------
    7  57 43  0  0    43   14   14   14   14    0    0    0    0    0

1976                                 -|
    1   0100  0  0     0    0    0  100    0    0    0    0    0    0

------------------------------------------------------------------------
                ETHI BLACK    GRADE 12        LANGUAGE
------------------------------------------------------------------------
       QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   -----|----------
  850  67 20  9  5    36   22   13    9    7    4    3    2    2    2

1972                 ---|---------
  518  75 15  8  2    53   17    7    9    4    3    4    1    0    1

1973                 ---|-------
  635  77 17  4  1    59   15    9    8    4    3    1    1    0    0

1974                  ----|--------
  830  73 19  6  3    44   21   12    8    6    3    2    2    1    0

1975                  ---|-----------
  795  72 17  9  2    46   21    8    9    5    5    3    2    1    1

1976                  ---|------
  776  79 13  7  2    49   24    8    6    4    3    3    1    1    0

LARGE CITY NORMS                ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                      EAST OAK CLIFF SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------------
                   ETHI MEXAM     GRADE 12       LANGUAGE
------------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                 -|----------
   4  75  0  0 25    50    0   25    0    0    0    0    0   25    0

1972                        ----------------|--
   3  33 33 33  0     0   33    0    0   33   33    0    0    0    0

1973                 |-----
   4  75 25  0  0    50   25    0    0   25    0    0    0    0    0

1974                      |----------
   2  50 50  0  0     0   50    0   50    0    0    0    0    0    0

1975                          --|------
   3  33 67  0  0     0    0   67   33    0    0    0    0    0    0

1976                        |------------
   2  50 50  0  0     0   50    0   50    0    0    0    0    0    0

------------------------------------------------------------------------------
                   ETHI TOTAL     GRADE 12       LANGUAGE
------------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   -----|----------
 861  67 20  9  5    36   22   13    9    7    4    3    2    2    2

1972                 ---|---------
 528  74 16  8  2    53   17    7    9    4    4    4    1    0    1

1973                 ---|-------
 678  77 17  4  1    59   15    9    7    4    3    1    1    0    0

1974                  ----|--------
 841  72 19  6  3    44   21   12    8    6    3    2    2    1    0

1975                  ---|-----------
 798  72 17  9  2    45   21    9    9    5    5    3    2    1    1

1976                  ---|-------
 780  79 13  7  2    49   24    8    6    4    3    3    1    1    0

LARGE CITY NORMS               ------------|-------------
      25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------------
```

```
                         EAST OAK CLIFF SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------------
                 ETH: ANGLO      GRADE  2        MATHEMATICS
--------------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+....+

1972                                ------------|---------
   39  26 23 36 15      5    13    13    13     5    15    18     8     5     5

1973                       --------|----------------
   10  50 10 30 10     30     0    20    10     0    30     0     0     0    10

1974                         ----------|-----
   12  33 50  8  8     25     8    25    17     8     0     8     0     8     0

1975                         ------|---------
   23  52 39  9  0     26    17    17    17    13     4     4     0     0     0

1976                               ----------------|----------------
    4  25 25  0 50      0    25     0     0    25     0     0    25     0    25

--------------------------------------------------------------------------------
                 ETH: BLACK      GRADE  2        MATHEMATICS
--------------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+....+

1972                          --------|----------
 1756  49 27 19  5     21    17    18    12     8    10     6     5     2     1

1973                         -------|-----------
 1979  50 27 17  6     23    17    16    13     9     8     6     4     3     1

1974                         ----------|----------
 1918  49 31 16  4     32    14    13    12    10     7     7     3     2     1

1975                         ----------|----------
 1744  46 31 19  5     27    14    13    12    11     8     8     4     3     1

1976                         ----------|----------
 1985  42 34 19  5     26    14    12    13    12     8     8     4     3     1

LARGE CITY NORMS                      ------------|-------------
       25 25 25 25     10    10    10    10    10    10    10    10    10    10

                     +....+....+....+....+....+....+....+....+....+....+....+....+
                     0    10    20    30    40    50    60    70    80    90   100
--------------------------------------------------------------------------------
```

```
                          EAST OAK CLIFF SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETHI MEXAM      GRADE  2       MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                       ---------------|-----------
   38   42 18 26 13     21   16    5    8   11   13   13    3   11    0

1973                       ------|----------
   44   52 25 11 11     23   23   23    5    5    2    7    5    7    2

1974                    ----|-----------
   40   60 33  8  0     45   13   10   18    8    5    3    0    0    0

1975                          -----|-----------
   44   36 50 11  2     20    7   23   16   20    5    5    2    2    0

1976                      ---------|----------
   35   46 40 14  0     34    9   14   14   14    5    9    3    0    0

-------------------------------------------------------------------------
                  ETHI TOTAL      GRADE  2       MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                       --------|----------
 1840   48 27 20  5     21   17   17   12    8   10    6    5    2    1

1973                      -------|-----------
 2038   50 27 17  6     23   17   16   13    8    8    6    4    3    1

1974                     ---------|----------
 1972   49 31 16  3     33   14   13   12   10    7    7    2    2    1

1975                     ---------|----------
 1825   45 31 19  4     27   14   13   12   11    8    8    4    3    1

1976                     ---------|----------
 2026   42 34 19  5     26   14   12   13   12    8    8    4    3    1

LARGE CITY NORMS                  ------------|------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

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EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETH: ANGLO     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
       QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ------|------------------
   17   59 24 12  6    35   18    6   12   12    0   12    0    0    6

1972                     ---|------
   75   75 17  3  5    35   28   16    9    4    0    3    1    4    0

1973                    ---|---------
   24   71 21  8  0    42   25    8    8    8    4    0    4    0    0

1974                   -|---------
   17   76 18  6  0    53    6   24    6    6    0    6    0    0    0

1975                  |--
    6   83  0 17  0    83    0    0    0    0    0    0   17    0    0

1976                  -|---------
   16   75  6 19  0    63   13    0    0    6   13    6    0    0    0

------------------------------------------------------------------------
                ETH: BLACK     GRADE  4      MATHEMATICS
------------------------------------------------------------------------
       QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     ----|-------
 2711   68 24  7  1    32   24   19   12    5    4    2    1    0    0

1972                      ----|-------
 2083   67 25  6  2    28   25   22   12    6    3    2    1    1    0

1973                      ----|-------
 1896   66 26  6  1    27   26   21   13    6    2    3    2    0    0

1974                  --|---------
 1879   79 14  6  1    57   17    6    9    4    3    3    1    1    0

1975                  --|---------
 1703   77 14  7  2    56   15    7    9    4    4    3    1    1    0

1976                  --|-------------
 1899   72 16 10  2    54   15    6   10    4    4    4    2    1    0

LARGE CITY NORMS                 ------------|------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETH: MEXAM     GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ---|---------
   61  67 21  8  3     30   30   15   13    2    2    7    3    0    0

1972                     ----|-----
   55  69 29  2  0     31   31   18   15    4    0    2    0    0    0

1973                    ----|-----
   29  79 21  0  0     34   28   24   10    3    0    0    0    0    0

1974                 --|--------------
   42  64 19  5  7     62    5    2   12    7    2    2    2    2    2

1975                 -|--------
   31  81 10 10  0     61   16    3    6    3    6    3    0    0    0

1976                   ---|----------------
   43  70 14 16  0     49   19    2   14    0    9    7    0    0    0

-------------------------------------------------------------------------
                ETH: TOTAL     GRADE  4      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                       PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     ----|-------
 2794  68 24  7  1     32   24   19   12    5    4    2    1    0    0

1972                      ----|-------
 2223  68 25  6  2     28   25   22   12    6    3    2    1    1    0

1973                      ----|-------
 1953  66 26  6  1     27   26   21   13    6    2    3    2    0    0

1974                 --|----------
 1940  78 14  6  1     57   17    6    9    4    3    3    1    1    0

1975                 --|----------
 1746  77 14  7  2     57   15    7    9    4    4    3    1    1    0

1976                 --|-------------
 1962  72 16 10  2     54   15    5   10    4    4    4    2    1    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                          EAST OAK CLIFF SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------------
                  ETHI ANGLO      GRADE  6      MATHEMATICS
-------------------------------------------------------------------------------
         QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  ----|---------
  41  68 20  7  5     44   20   12   10    2    5    0    5    0    2

1972                 ----|-------
  19  74 21  5  0    42   21   21    5    5    5    0    0    0    0

1973                 --|-------------------
  15  67 13 20  0    60    7    7    0    7    0    7   13    0    0

1974                 -|----------
  12  75  0 17  8    67    0    8    0    0    0    0    8    8    0

1975                |-
   6 100  0  0  0   100    0    0    0    0    0    0    0    0    0

1976                |---------
   8  88  0 13  0    63   25    0    0    0    0   13    0    0    0

-------------------------------------------------------------------------------
                  ETHI BLACK      GRADE  6      MATHEMATICS
-------------------------------------------------------------------------------
         QUARTILE                                  PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                 ----|----------
2351  68 24  7  1    44   17   11   13    7    4    2    2    0    0

1972                 ----|----------
2046  70 21  7  2    43   19   13    9    7    4    2    2    1    0

1973                 ----|----------
2069  70 21  8  1    45   18   13   10    6    4    2    2    0    0

1974                -|-------
1962  83 13  4  0    68   12    7    5    4    2    1    0    0    0

1975                -|--------
1993  83 11  5  1    66   13    7    4    3    3    2    1    0    0

1976                -|--------
2135  81 13  5  1    64   13    8    5    5    3    1    1    1    0

LARGE CITY NORMS                      ------------|-------------
      25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------------
```

```
                     EAST OAK CLIFF SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                   ETH: MEXAM     GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     --|-------
    52  77 19  2  2     56   15   10    6   10    0    2    2    0    0

1972                     ---|-------
    46  78 17  4  0     48   20   17    4    7    4    0    0    0    0

1973                      ---|---------
    34  74 15 12  0     41   24   15    3    6    9    3    0    0    0

1974                    -|-----
    40  90  8  3  0     68   20    3    0    8    3    0    0    0    0

1975                    -|------
    28  96  4  0  0     57   32    7    0    4    0    0    0    0    0

1976                    ---|-----------
    29  72 10 14  3     52    3   21    0    7    7    7    3    0    0

-------------------------------------------------------------------------
                   ETH: TOTAL     GRADE  6      MATHEMATICS
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ----|---------
  2505  69 23  7  1     44   17   11   13    7    4    2    2    0    0

1972                    ----|---------
  2125  70 21  7  2     44   19   13    9    7    4    2    2    1    0

1973                    ----|---------
  2122  70 21  8  1     45   18   13    9    6    5    2    2    0    0

1974                    -|------
  2017  83 13  4  0     66   12    7    5    4    2    1    0    0    0

1975                    -|-------
  2033  83 11  5  1     66   14    7    3    3    3    2    1    0    0

1976                    -|-------
  2182  81 13  5  1     64   13    8    5    5    3    2    1    1    0

LARGE CITY NORMS                  -----------|-----------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                 ETHI ANGLO      GRADE  8      MATHEMATICS
----------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    --------|--------
   46  59 30  4  7     39    7    15    20     9     2     2     0     4     2

1972                     ---|-----
   24  83  8  4  4     33    33   21     0     4     0     4     0     4     0

1973                  ----|----
   39  85 13  3  0     49    36    5     3     5     0     0     3     0     0

1974                  |---------
   44  75 18  7  0     59    11    9     7     7     5     2     0     0     0

1975                  ------|-----------
    7  71 14 14  0     43    14   14    14     0    14     0     0     0     0

1976                     ------------|---------------------
   15  40 20 13 27     13    27    0    13     7     7     0    13     7    13

----------------------------------------------------------------------------
                 ETHI BLACK      GRADE  8      MATHEMATICS
----------------------------------------------------------------------------
        QUARTILE                              PERCENTILES
FALL  DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                  ---|-------
 2468  77 17  5  1     50    21   11     7     5     3     2     1     0     0

1972                  ---|------
 1711  79 16  4  2     50    24   10     7     4     2     2     1     1     0

1973                  ---|-----
 1836  82 14  3  1     51    24   11     6     4     2     1     0     0     0

1974                 -|-----
 1737  87 11  3  0     70    14    5     6     3     1     1     1     0     0

1975                 -|------
 1871  85 12  3  0     66    15    6     6     3     2     1     0     0     0

1976                 --|------
 2069  81 15  4  1     63    14    7     7     4     2     1     1     0     0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10    10   10    10    10    10    10    10    10    10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
----------------------------------------------------------------------------
```

```
                     EAST OAK CLIFF SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                      ETH: MEXAM      GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  --|---------
  55   84 16  0  0     64   11   20    2    4    0    0    0    0    0

1972                   ---|----
  48   85  8  2  4     44   33   15    2    0    0    2    0    4    0

1973                  --|-----
  43   88 12  0  0     58   23   12    5    2    0    0    0    0    0

1974                  -|----
  24   88 13  0  0     67   17    8    8    0    0    0    0    0    0

1975                  -|-----
  17   76 18  6  0     71    6    0   12    6    6    0    0    0    0

1976                 --|---------
  33   76 18  6  0     55   18    9    3    9    3    3    0    0    0

-----------------------------------------------------------------------
                      ETH: TOTAL      GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  ---|-------
2605   77 17  5  1     50   20   12    7    5    3    2    1    0    0

1972                 ---|------
1792   79 15  4  2     49   24   10    6    4    2    2    1    1    0

1973                  ---|-----
1924   83 14  3  1     51   24   11    6    4    2    1    0    0    0

1974                 -|-----
1810   86 11  3  0     69   14    5    6    3    1    1    0    0    0

1975                 -|------
1898   85 12  3  0     66   15    6    6    3    2    1    0    0    0

1976                 --|------
2129   80 15  4  1     62   14    8    7    4    2    1    1    0    0

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                    EAST OAK CLIFF SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                 ETH: ANGLO     GRADE  9      MATHEMATICS
---------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            -------|--------------------
    22   41 23 27  9      14   14   23    9    5    5   18   14    0    0

1972                               --------|-------
   167   26 46 28  1       5   13   24   15   15   20    7    1    0    1

1973                               -----------|-------
    11   27 27 36  9       0   18   27    0    9   27    9    0    9    0

1974                                   ----|-------
    21   19 52 29  0       5    5   29   19   14   14    5   10    0    0

1975                               --------|----------
     9   33 22 44  0      11    0   33   11    0   22   22    0    0    0

1976                                       |----
     2    0100  0  0       0    0    0   50   50    0    0    0    0    0

---------------------------------------------------------------------------
                 ETH: BLACK     GRADE  9      MATHEMATICS
---------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                               ----|-----------
  1457   36 39 23  2       8   16   27   13   11   16    6    2    1    0

1972                            -------|-------
  1685   39 40 20  1       7   18   29   13   12   14    5    1    0    0

1973                               ----|-------
  1641   38 41 20  1       6   19   28   14   12   14    5    2    0    0

1974                               ----|-------
  1732   38 41 20  1       7   17   28   14   12   14    5    2    0    0

1975                               ----|-------
  1837   35 44 20  1       5   16   30   14   14   13    6    1    0    0

1976                               --------|---
  1786   33 45 22  1       4   16   30   15   13   16    5    1    0    0

LARGE CITY NORMS                    ------------|------------
         25 25 25 25      10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                 EAST OAK CLIFF SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETH: MEXAM      GRADE  9       MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                              PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                          -----------|---
    34 38 38 24  0      21    9   15    9   24   12    9    3    0    0

1972                             --------|-------
    38 26 42 26  5       8    8   26   13   13   21    3    5    3    0

1973                        -------------|----
    23 43 39 17  0      13   26    9   22   13   13    0    4    0    0

1974                        --------|--------
    24 46 33 21  0      13   21   29    8    8   21    0    0    0    0

1975                             --------|-------
    23 39 30 30  0       0   17   22   17   13   17   13    0    0    0

1976                         ---|---------------
     7 57 14 29  0       0   43   29    0    0   29    0    0    0    0

-------------------------------------------------------------------------
                  ETH: TOTAL      GRADE  9       MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                              PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                             --------|-------
  1529 36 39 23  2       8   16   26   13   12   16    6    2    1    0

1972                             ----|-------
  1900 38 40 21  1       7   18   28   13   12   15    5    1    0    0

1973                             ----|-------
  1693 38 41 20  1       6   19   28   14   12   14    5    2    1    0

1974                             ----|-------
  1792 38 41 20  1       7   17   29   14   12   14    5    2    0    0

1975                             ----|-------
  1877 35 44 20  1       5   16   30   14   13   13    6    1    0    0

1976                             -------|---
  1805 33 45 22  1       4   16   29   15   13   16    5    1    0    0

LARGE CITY NORMS                  ------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                    EAST OAK CLIFF SUBDISTRICT
             INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
               ETHI ANGLO     GRADE 12      MATHEMATICS
-----------------------------------------------------------------------
      QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        ---------|
    4 25 75  0  0       0   25    0   75    0    0    0    0    0    0

1972                   --------|---------
    5 60 20  0 20      40    0   20   20    0    0    0    0   20    0

1973                    --|------------
   15 67 33  0  0      40   20   13   20    7    0    0    0    0    0

1974                      --|----
    7 86 14  0  0      14   43   43    0    0    0    0    0    0    0

1976                                                    |-
    1  0  0100  0       0    0    0    0    0    0    0  100    0    0

-----------------------------------------------------------------------
               ETHI BLACK     GRADE 12      MATHEMATICS
-----------------------------------------------------------------------
      QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|------
  850 59 31  8  2      21   25   21   13   10    4    3    2    1    0

1972                      -----|------
  518 61 29  8  1      23   25   22   10   10    5    2    1    1    0

1973                    ----|-----
  607 70 25  4  0      35   26   17   10    7    1    3    0    0    0

1974                      -----|------
  851 58 34  7  1      20   27   25   14    7    4    3    1    0    0

1975                      -----|------
  809 60 33  6  1      19   26   27   14    8    3    2    1    0    0

1976                      -----|------
  788 61 34  5  0      20   24   28   16    6    3    1    1    0    0

LARGE CITY NORMS                ------------|------------
      25 25 25 25      10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                    ETHI MEXAM      GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
           QUARTILE                        PERCENTILES
FALL    DISTRIBUTION 0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                  --------|-
    4    75 25  0  0   25   50    0    0   25    0    0    0    0    0

1972                               ------|---------------
    3     0 67 33  0    0    0   33   33    0    0   33    0    0    0

1973                   -|-----
    4    75 25  0  0   50   25    0   25    0    0    0    0    0    0

1974                    -|--
    2   100  0  0  0   50   50    0    0    0    0    0    0    0    0

1975                 --------------|---------------
    3    33 33 33  0   33    0   33    0    0   33    0    0    0    0

1976                       |------
    2   100  0  0  0    0   50   50    0    0    0    0    0    0    0

-------------------------------------------------------------------------
                    ETHI TOTAL      GRADE 12      MATHEMATICS
-------------------------------------------------------------------------
           QUARTILE                        PERCENTILES
FALL    DISTRIBUTION 0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                       -----|------
  861    59 32  8  2   21   25   21   13   10    4    3    2    1    0

1972                       -----|------
  528    61 29  8  1   23   25   22   11   10    5    2    1    1    0

1973                     ----|-----
  650    70 25  4  0   36   26   17   10    7    1    3    0    0    0

1974                       -----|------
  861    59 33  7  1   20   27   25   14    7    4    3    1    0    0

1975                       -----|------
  812    60 33  6  1   19   25   27   14    8    4    2    1    0    0

1976                       -----|------
  792    61 33  6  0   20   25   28   16    6    3    1    1    0    0

LARGE CITY NORMS                 ------------|-------------
         25 25 25 25   10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

EAST OAK CLIFF SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------
                 ETH: ANGLO     GRADE  9     SOCIAL STUDIES
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                         ------|-------------
    22 41 32 23  5     23   18   14    0   18   14    9    0    5    0

1972                       ----|-------
   167 66 31  3  1     20   32   22   10   13    2    1    1    0    1

1973                         ------|-------------
    12 33 33 33  0      8   25   17    0   17   17    8    8    0    0

1974                       --|----------------
    21 62 14 14 10     19   33   10    5   10    5    5   10    0    5

1975                           --|-----
    10 50 30 20  0     20   20   20   20    0   10   10    0    0    0

1976                             -|-
     2 50 50  0  0      0    0  100    0    0    0    0    0    0    0

--------------------------------------------------------------------------
                 ETH: BLACK     GRADE  9     SOCIAL STUDIES
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-----
  1457 59 31  9  1     19   29   23    8   11    6    3    1    1    0

1972                       ------|----------
  1685 55 33 10  1     19   25   20    9   15    6    4    1    1    0

1973                       ----|-------
  1688 62 27 10  1     23   29   19    8   10    6    3    1    1    0

1974                       ----|-------
  1790 61 29  9  1     23   28   20    8   12    4    4    1    0    0

1975                       ----|-------
  1886 61 28 10  1     22   29   20    6   12    6    3    1    1    0

1976                       ----|-------
  1834 61 30  8  1     22   29   19    9   12    5    3    0    0    0

LARGE CITY NORMS                 ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

```
                    EAST OAK CLIFF SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

****************************************************************************
                ETH: MEXAM      GRADE  9      SOCIAL STUDIES
****************************************************************************
          QUARTILE                                PERCENTILES
FALL     DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                           ----|--------------
   34   59 21 15  6        24   26   18    3    9    9    3    6    0    3

1972                          -----|-------
   38   61 26 13  0        26   26   16    8   11    3   11    0    0    0

1973                           --|------
   25   64 32  4  0        12   40   28    4   12    0    0    4    0    0

1974                           ------|--
   25   60 28 12  0         8   40   36    4    0    8    4    0    0    0

1975                        -----|------
   25   72 24  4  0        36   24   24    4    8    0    4    0    0    0

1976                          ------|-
    7   86 14  0  0         0   43   43    0   14    0    0    0    0    0

****************************************************************************
                ETH: TOTAL      GRADE  9      SOCIAL STUDIES
****************************************************************************
          QUARTILE                                PERCENTILES
FALL     DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4      +....+....+....+....+....+....+....+....+....+....+

1971                           ------|-----
 1529   59 31  9  2        19   29   22    8   11    6    3    1    1    1

1972                           ------|----------
 1900   57 32 10  1        19   26   20    9   15    5    4    1    1    0

1973                           ----|-------
 1742   62 27 10  1        23   29   19    8   10    6    3    1    1    0

1974                           ----|-------
 1852   61 29  9  1        22   28   20    8   12    5    4    1    0    0

1975                           ----|-------
 1929   61 28  9  1        22   29   20    6   12    6    3    1    1    0

1976                           ----|-------
 1854   61 30  8  1        22   29   19    9   11    5    3    0    0    0

LARGE CITY NORMS                     ------------|-------------
        25 25 25 25        10   10   10   10   10   10   10   10   10   10

                         +....+....+....+....+....+....+....+....+....+....+
                         0    10   20   30   40   50   60   70   80   90   100
****************************************************************************
```

```
                        EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------------
                 ETHI ANGLO      GRADE 12      SOCIAL STUDIES
--------------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+

1971                   -|-
   4   100  0  0  0     75    25     0     0     0     0     0     0     0     0

1972                    --------|--
   5    80  0 20  0     40    20    20     0     0     0    20     0     0     0

1973                   -|------
  15   100  0  0  0     73     7    20     0     0     0     0     0     0     0

1974                     --------|-------------
   7    57 29 14  0     29     0    29    14    14    14     0     0     0     0

1976                                                    -|
   1     0  0100  0      0     0     0     0     0     0   100     0     0     0

--------------------------------------------------------------------------------
                 ETHI BLACK      GRADE 12      SOCIAL STUDIES
--------------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL    DISTRIBUTION  0    10    20    30    40    50    60    70    80    90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+....+

1971                    ----|---------
 850    67 25  7  1     40    20    12 [illegible]  6     4     2     1     0     0

1972                    ---|---------
 518    73 21  5  1     47    19    12    11     5     3     1     1     0     1

1973                   --|------
 642    86 12  2  0     62    17    11     4     3     1     1     0     0     0

1974                    -----|-------
 865    73 20  6  1     40    27    12    11     4     3     2     1     0     0

1975                     --|---------
 813    73 20  6  1     42    25 [illegible] 10     5     3     2     1     0     0

1976                     --|---------
 788    73 23  4  0     42    23    13    13     5     2     1     1     0     0

LARGE CITY NORMS                     -------------|-------------
        25 25 25 25     10    10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+....+
                      0    10    20    30    40    50    60    70    80    90   100
--------------------------------------------------------------------------------
```

```
                       EAST OAK CLIFF SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI MEXAM     GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    --|-------------
    4  50 50  0  0     25   25    0   50    0    0    0    0    0    0

1972                               --|-----
    3   0100  0  0      0    0   33   33   33    0    0    0    0    0

1973                  -|----------
    4  75 25  0  0     50    0   50    0    0    0    0    0    0    0

1974                   |-----
    2 100  0  0  0     50   50    0    0    0    0    0    0    0    0

1975                  ------|--------
    3  67 33  0  0     33   33   33    0    0    0    0    0    0    0

1976                    |-----------------
    2  50 50  0  0     50    0    0   50    0    0    0    0    0    0

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE 12      SOCIAL STUDIES
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ----|----------
  861  67 25  7  1     40   21   11   14    6    4    2    1    0    0

1972                   ---|----------
  528  73 21  5  1     47   19   12   11    5    3    1    1    0    1

1973                  --|-------
  686  86 11  2  0     63   16   12    4    3    1    1    0    0    0

1974                    ----|--------
  875  73 20  6  1     40   27   12   11    4    3    2    1    0    0

1975                   ---|----------
  816  73 20  6  1     42   25   11   10    5    3    2    1    0    0

1976                    --|----------
  792  73 23  4  0     42   23   13   13    5    2    1    1    0    0

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                        EAST OAK CLIFF SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

=========================================================================
                 ETHI ANGLO       GRADE  9          SCIENCE
=========================================================================
        QUARTILE                                PERCENTILES
FALL  DISTRIBUTION    0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                        ----|------------------------
   22   59  5 32  5      32   23     5     0     5     9    18     9     0     0

1972                             ---|--------
  167   52 46  2  1      23   20    16    20    18     1     1     1     0     0

1973                        -------|---
   12   67 25  8  0      25   17    33     8     8     8     0     0     0     0

1974                        ------|-----------
   21   52 33  5 10      38    5    19     5    19     0     0    10     5     0

1975                             ---|---------------
   10   60 20 10 10      20   10    30     0    20    10     0     0     0    10

1976                                    |-
    2    0100  0  0       0    0   100     0     0     0     0     0     0     0

=========================================================================
                 ETHI BLACK       GRADE  9          SCIENCE
=========================================================================
        QUARTILE                                PERCENTILES
FALL  DISTRIBUTION    0    10    20    30    40    50    60    70    80    90   100
 N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                         -----|-----
 1457   61 33  5  1      28   22    21    14     9     2     2     1     0     0

1972                       ----|------
 1685   73 25  2  0      45   19    16    11     7     1     1     0     0     0

1973                       ----|----
 1693   75 23  2  0      48   18    16    10     6     1     0     0     0     0

1974                         ----|-----
 1786   67 28  4  1      36   21    19    11     8     2     2     1     0     0

1975                         ----|--------
 1866   66 31  3  0      35   20    18    14     8     2     1     1     0     0

1976                          ---|--------
 1825   64 32  3  1      32   21    20    14     8     2     1     0     0     0

LARGE CITY NORMS                      ------------|------------
        25 25 25 25      10   10    10    10    10    10    10    10    10    10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10    20    30    40    50    60    70    80    90   100
=========================================================================
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416

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                    EAST OAK CLIFF SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
              ETH: MEXAM      GRADE  9        SCIENCE
------------------------------------------------------------------------
       QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ------|------
  34  59 32  6  3      35   12   15   24    6    3    3    0    3    0

1972                    -----|-----
  38  58 39  3  0      34   16   26   13    8    3    0    0    0    0

1973                    ----|--
  25  84 12  4  0      44   32    8    8    4    0    4    0    0    0

1974                      ---|-----
  25  68 28  4  0      28   32   16   20    0    4    0    0    0    0

1975                    -----|---
  25  76 20  0  4      44   16   16   16    4    0    0    4    0    0

1976                        -|-------------
   7  71 14 14  0      14   43   14    0   14   14    0    0    0    0

------------------------------------------------------------------------
              ETH: TOTAL      GRADE  9        SCIENCE
------------------------------------------------------------------------
       QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      -----|------
1529  61 33  5  2      28   22   20   14    9    2    2    1    1    0

1972                     ---|------
1900  71 27  2  0      43   19   16   12    8    1    1    0    0    0

1973                    ----|----
1747  75 23  2  0      48   19   16   10    6    1    0    0    0    0

1974                     ----|-----
1847  67 28  4  1      36   21   19   12    8    2    2    1    0    0

1975                     ----|--------
1929  66 31  3  0      35   20   18   14    8    2    1    1    0    0

1976                      ---|--------
1845  64 32  3  1      32   21   20   14    9    2    1    0    0    0

LARGE CITY NORMS                 ------------|------------
      25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
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                           EAST OAK CLIFF SUBDISTRICT
                   INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------------
                       ETHI ANGLO      GRADE 12        SCIENCE
------------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    ---------|
     4  75  0 25  0     25     0    50     0     0    25     0     0     0     0

1972                    -|------
     5  80  0 20  0     60    20     0     0     0    20     0     0     0     0

1973                   |--
    15 100  0  0  0     93     7     0     0     0     0     0     0     0     0

1974                     --------|-----------
     7  71 29  0  0     29    14    29     0    29     0     0     0     0     0

1976                                                -|
     1   0  0100  0      0     0     0     0     0   100     0     0     0     0

------------------------------------------------------------------------------
                       ETHI BLACK      GRADE 12        SCIENCE
------------------------------------------------------------------------------
          QUARTILE                                PERCENTILES
FALL    DISTRIBUTION   0    10    20    30    40    50    60    70    80    90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ----|--------
   850  67 22  9  2     41    20    16     5     7     4     5     1     1     0

1972                    -|----
   518  91  9  1  0     70    16     8     4     1     0     0     0     0     0

1973                   |---
   643  97  3  0  0     77    17     4     2     0     0     0     0     0     0

1974                    --|-------
   868  75 18  6  1     50    19    13     5     6     3     3     1     1     0

1975                    ----|-----
   814  77 16  7  0     48    24    12     4     5     3     3     1     0     0

1976                   ---|-------
   788  79 17  4  0     51    23    12     6     3     2     2     0     0     0

LARGE CITY NORMS                    ------------|------------
        25 25 25 25     10    10    10    10    10    10    10    10    10    10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10    20    30    40    50    60    70    80    90   100
------------------------------------------------------------------------------
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                      EAST OAK CLIFF SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------------
                      ETH: MEXAM      GRADE 12        SCIENCE
-------------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      --|---
    4  75 25  0  0     25   50   25    0    0    0    0    0    0    0

1972                              ----|----
    3  33 67  0  0      0    0   67   33    0    0    0    0    0    0

1973                   |---------
    4 100  0  0  0     50   25   25    0    0    0    0    0    0    0

1974                     -|-----
    2 100  0  0  0     50   50    0    0    0    0    0    0    0    0

1975                        -----|--
    3  67 33  0  0      0   33   67    0    0    0    0    0    0    0

1976                   |--------------
    2  50 50  0  0     50    0   50    0    0    0    0    0    0    0

-------------------------------------------------------------------------------
                      ETH: TOTAL      GRADE 12        SCIENCE
-------------------------------------------------------------------------------
          QUARTILE                           PERCENTILES
FALL   DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                     ----|--------
  861  67 22 10  2     40   20   16    5    7    4    5    1    1    0

1972                    -|----
  528  90  9  1  0     70   16    8    4    1    1    0    0    0    0

1973                   |---
  687  97  3  0  0     78   16    4    2    0    0    0    0    0    0

1974                    --|-------
  878  76 18  6  1     50   20   13    5    6    3    3    1    1    0

1975                    ----|-----
  817  77 16  7  0     47   24   12    4    5    3    3    1    0    0

1976                    ---|-------
  792  79 17  4  0     51   23   12    6    3    2    2    0    0    0

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------------
```

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 2

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2566	2477	2173	2077	2001	2102
AVERAGE DAILY ATTENDANCE	2319	2109	1982	1857	1731	1927
INDEX OF AVERAGE DAILY ATTENDANCE	90.4	85.2	91.2	89.4	86.5	91.7
AVERAGE DAILY TRANSACTIONS	4.0	4.7	4.6	4.9	4.8	4.6
INDEX OF AVERAGE DAILY TRANSACTIONS	0.16	0.19	0.21	0.23	0.24	0.22
INDEX OF SCHOOL ATTRACTION	-.00	-.01	-.00	-.01	0.00	-.02
ENROLLMENT BY ETHNICITY						
% OTHER	0.8	0.6	0.4	0.5	0.4	0.5
% BLACK	96.5	97.0	97.8	97.1	97.7	97.4
% MEXICAN-AMERICAN	2.7	2.4	1.7	2.3	1.9	2.1
% AMERICAN INDIAN	0.0	0.0	0.0	0.0	0.1	0.0
% ORIENTAL	0.0	0.0	0.0	0.0	0.0	0.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 4

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2153	2340	2175	2125	1900	2048
AVERAGE DAILY ATTENDANCE	1949	2023	1989	1913	1674	1903
INDEX OF AVERAGE DAILY ATTENDANCE	90.5	86.4	91.4	90.0	88.1	92.9
AVERAGE DAILY TRANSACTIONS	3.2	4.1	4.3	4.4	4.1	4.2
INDEX OF AVERAGE DAILY TRANSACTIONS	0.15	0.18	0.20	0.21	0.21	0.21
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.01	-.00	0.00	-.02
ENROLLMENT BY ETHNICITY						
% OTHER	0.7	0.6	0.3	0.5	0.3	1.2
% BLACK	97.1	96.7	97.8	97.1	98.0	96.4
% MEXICAN-AMERICAN	2.2	2.6	1.9	2.4	1.7	2.1
% AMERICAN INDIAN	0.0	0.1	0.0	0.0	0.0	0.2
% ORIENTAL	0.0	0.0	0.0	0.0	0.0	0.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 6

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2253	2362	2256	2191	2135	2272
AVERAGE DAILY ATTENDANCE	2042	2039	2058	1971	1874	2111
INDEX OF AVERAGE DAILY ATTENDANCE	90.6	86.3	91.2	89.9	87.8	92.9
AVERAGE DAILY TRANSACTIONS	3.3	3.9	4.2	4.3	4.4	4.6
INDEX OF AVERAGE DAILY TRANSACTIONS	0.15	0.17	0.19	0.20	0.21	0.20
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.01	-.00	0.00	-.02
ENROLLMENT BY ETHNICITY						
% OTHER	0.9	0.5	0.4	0.6	0.3	0.7
% BLACK	96.1	97.2	97.8	97.1	98.0	97.5
% MEXICAN-AMERICAN	2.9	2.2	1.7	2.2	1.5	1.7
% AMERICAN INDIAN	0.0	0.1	0.1	0.1	0.1	0.1
% ORIENTAL	0.0	0.0	0.0	0.0	0.0	0.0

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

ELEMENTARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	615	491	806	621	676
% FEMALE	****	91.7	90.1	91.5	90.2	90.2
% MALE	****	8.4	9.9	8.6	9.9	9.8
AGE						
% LESS THAN 26 YEARS OLD	****	35.5	35.4	29.8	28.4	16.1
% 26 - 35 YEARS OLD	****	28.1	29.4	36.4	32.7	41.1
% 36 - 45 YEARS OLD	****	21.2	21.5	19.3	21.7	22.3
% 46 - 55 YEARS OLD	****	9.7	8.9	9.6	9.9	13.1
% 56 - 65 YEARS OLD	****	4.6	4.3	4.2	5.9	6.5
% OVER 65 YEARS OLD	****	0.8	0.9	0.9	0.4	0.9
ETHNICITY						
% WHITE	****	64.6	67.8	68.0	59.6	56.0
% BLACK	****	34.9	32.1	31.7	39.8	43.3
% MEXICAN-AMERICAN	****	0.2	0.0	0.0	0.3	0.5
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	57.3	60.5	57.6	52.2	49.0
% 6 - 10 YEARS OF EXPERIENCE	****	15.7	16.0	17.1	17.6	19.8
% 11 - 15 YEARS OF EXPERIENCE	****	12.6	9.9	10.4	12.3	12.0
% 16 - 20 YEARS OF EXPERIENCE	****	6.5	6.7	6.8	8.8	9.2
% 21 - 40 YEARS OF EXPERIENCE	****	7.2	6.8	7.3	9.1	9.4
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.0	0.0	0.0	0.0	0.0
% WITH BACHELORS DEGREE ONLY	****	82.2	80.0	77.8	69.5	66.6
% WITH MASTERS DEGREE	****	17.9	20.0	22.0	30.3	33.4
% WITH DOCTORATE DEGREE	****	0.0	0.0	0.2	0.2	0.0

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 8

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2035	1972	2141	2159	2144	2369
AVERAGE DAILY ATTENDANCE	1789	1777	1844	1887	1890	2210
INDEX OF AVERAGE DAILY ATTENDANCE	87.9	90.1	86.1	87.4	88.2	93.3
AVERAGE DAILY TRANSACTIONS	2.5	2.6	3.1	3.6	3.2	2.1
INDEX OF AVERAGE DAILY TRANSACTIONS	0.12	0.13	0.14	0.17	0.15	0.09
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.01	-.02	-.01	0.00
ENROLLMENT BY ETHNICITY						
% OTHER	1.8	0.9	0.7	0.8	0.3	0.7
% BLACK	95.6	96.2	97.3	97.2	98.3	97.8
% MEXICAN-AMERICAN	2.5	2.9	1.9	1.9	1.3	1.4
% AMERICAN INDIAN	0.2	0.0	0.0	0.0	0.0	0.0
% ORIENTAL	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER OF DROPOUTS PER 100	****	0.0	1.2	0.9	0.8	****
% OTHER	****	0.0	0.0	0.1	0.0	****
% BLACK	****	0.0	1.1	0.8	0.8	****
% MEXICAN-AMERICAN	****	0.0	0.0	0.0	0.0	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 9

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2025	1948	2011	2045	2075	2105
AVERAGE DAILY ATTENDANCE	1779	1753	1732	1787	1829	1945
INDEX OF AVERAGE DAILY ATTENDANCE	87.9	89.9	86.1	87.4	88.2	92.4
AVERAGE DAILY TRANSACTIONS	2.5	2.5	2.9	3.4	3.1	3.3
INDEX OF AVERAGE DAILY TRANSACTIONS	0.12	0.13	0.14	0.16	0.15	0.16
INDEX OF SCHOOL ATTRACTION	-.01	-.01	-.01	-.02	-.01	-.04
ENROLLMENT BY ETHNICITY						
% OTHER	2.1	1.4	0.3	0.8	0.6	0.1
% BLACK	95.1	96.5	97.8	97.8	98.0	99.3
% MEXICAN-AMERICAN	2.7	2.0	1.8	1.4	1.4	0.5
% AMERICAN INDIAN	0.1	0.1	0.0	0.0	0.1	0.1
% ORIENTAL	0.1	0.0	0.0	0.0	0.0	0.0
NUMBER OF DROPOUTS PER 100	****	0.0	1.2	0.9	0.8	****
% OTHER	****	0.0	0.0	0.1	0.0	****
% BLACK	****	0.0	1.1	0.8	0.8	****
% MEXICAN-AMERICAN	****	0.0	0.0	0.0	0.0	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

GRADE 12

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	1012	895	932	1131	893	924
AVERAGE DAILY ATTENDANCE	865	748	787	959	747	854
INDEX OF AVERAGE DAILY ATTENDANCE	85.4	83.6	84.5	84.8	83.6	92.4
AVERAGE DAILY TRANSACTIONS	3.0	2.4	3.1	3.6	1.8	1.5
INDEX OF AVERAGE DAILY TRANSACTIONS	0.30	0.27	0.33	0.32	0.20	0.16
INDEX OF SCHOOL ATTRACTION	-.17	-.15	-.19	-.18	-.06	-.04
ENROLLMENT BY ETHNICITY						
% OTHER	0.7	0.3	0.4	0.2	0.0	0.3
% BLACK	98.8	99.1	98.6	99.5	99.7	99.4
% MEXICAN-AMERICAN	0.5	0.5	0.9	0.2	0.3	0.3
% AMERICAN INDIAN	0.0	0.0	0.1	0.1	0.0	0.0
% ORIENTAL	0.0	0.0	0.0	0.0	0.0	0.0
NUMBER OF DROPOUTS PER 100	****	2.0	5.2	6.4	2.6	****
% OTHER	****	0.2	0.0	0.0	0.0	****
% BLACK	****	1.8	5.0	6.3	2.6	****
% MEXICAN-AMERICAN	****	0.0	0.1	0.1	0.0	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

EAST OAK CLIFF SUBDISTRICT SUMMARY

SECONDARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	424	355	591	444	407
% FEMALE	****	63.9	68.0	63.3	61.1	58.2
% MALE	****	36.1	32.0	36.7	38.9	41.8
AGE						
% LESS THAN 26 YEARS OLD	****	35.9	30.5	25.8	19.9	12.7
% 26 - 35 YEARS OLD	****	34.3	39.2	45.6	44.3	45.3
% 36 - 45 YEARS OLD	****	18.6	16.7	17.1	23.1	24.4
% 46 - 55 YEARS OLD	****	6.9	9.9	7.6	9.3	12.9
% 56 - 65 YEARS OLD	****	3.3	2.6	3.1	2.8	3.9
% OVER 65 YEARS OLD	****	0.9	1.2	1.0	0.3	1.1
ETHNICITY						
% WHITE	****	63.4	62.7	65.2	52.2	45.8
% BLACK	****	35.2	36.1	33.5	45.6	51.3
% MEXICAN-AMERICAN	****	1.4	0.9	1.0	1.9	2.2
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	64.3	64.0	63.5	53.1	47.7
% 6 - 10 YEARS OF EXPERIENCE	****	13.1	13.5	16.1	19.5	20.4
% 11 - 15 YEARS OF EXPERIENCE	****	8.8	7.2	6.7	11.9	14.3
% 16 - 20 YEARS OF EXPERIENCE	****	5.7	6.8	5.9	7.2	7.5
% 21 - 40 YEARS OF EXPERIENCE	****	7.9	8.2	7.2	8.9	9.3
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.0	0.0	0.2	0.0	0.0
% WITH BACHELORS DEGREE ONLY	****	79.8	77.7	75.7	66.7	61.9
% WITH MASTERS DEGREE	****	20.2	22.3	24.1	33.2	37.4
% WITH DOCTORATE DEGREE	****	0.0	0.0	0.0	0.3	0.7

**** DATA NOT AVAILABLE

Southeast Subdistrict

1. In reading, Anglo median scores remained above norm only in grade 2 and fell well below norm in the upper grades. Across grades, actual growth over the years trailed expected growth. Black median scores remained well below norm in all grades, improving in grade 2, declining in grade 6, and holding steady in the four remaining grades. Across grades, actual growth trailed that expected of low scorers. Mexican-American median scores remained well below norm in all grades, declining in all grades. Across grades, actual growth trailed that expected of low scorers.

2. In language Anglo median scores remained below norm, declining within all grades. Across grades, actual growth exceeded expected growth over grades 2-4-6 and grades 4-6-8. Black median scores were below norm, improving in grade 2 by 8 percentile points, holding steady in grade 9, and declining in the four remaining grades. Mexican-American median scores were below norm, holding steady near percentile 20 in grade 9 and declining in the five remaining grades, particularly grade 6. Across grades, actual growth trailed that expected of low scorers.

3. In mathematics Anglo median scores remained at norm in grade 2, held steady in grade 9 at percentile 44 and in grade 12 near percentile 40, and declined in the three remaining grades. Across grades, actual growth trailed expected growth over all grade sequences. Black median scores were below norm, improving in grade 2 by 8 percentile points and in grade 12 by 6 percentile points, and declining in the four remaining grades. Across grades, actual growth badly trailed that expected of low scorers. Mexican-American median scores were below norm, regaining in 1976 the percentile rank they enjoyed in 1972 in grade 2, holding steady since 1972 in grade 12, declining only in the last year in grade 9, and declining gradually in the three remaining grades. Across grades, actual growth badly trailed that expected of low scorers.

4. In social studies Anglo median scores remained below norm in both grades, holding steady at percentile 34 since 1973 in grade 9 and remaining near percentile 34 since 1971 in grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 equalled expected growth. Black median scores were below norm

in both grades, holding steady at percentile 24 in grade 9 and improving somewhat in grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 trailed that expected of low scorers. Mexican-American median scores were below norm in both grades, holding steady near percentile 28 in grade 9 and declining somewhat in grade 12. Across grades, actual growth from grade 9 in 1973 to grade 12 in 1976 trailed that expected of low scorers.

5. In science Anglo median scores remained below norm in both grades, declining in grade 9 from percentile 40 to 36 and in grade 12 from percentile 48 to 40. Black median scores were below norm in both grades, rising in grade 9 to percentile 20 and holding steady in grade 12 at percentile 12. Mexican-American median scores were below norm in both grades, declining in grade 9 from percentile 26 to 20 and in grade 12 from percentile 26 to 14. No statement can be made concerning actual growth from grade 9 in 1973 to grade 12 in 1976 because the science subtest was irrecoverably misscored by Region X in 1973.

6. The varying number of students tested each year from each ethnic group serves as an index of enrollment trends and as an influence on achievement trends. Anglo test-takers have declined moderately in grade 2 since 1972 and more heavily in the five remaining grades since 1971; in the lower grades the largest losses occurred between 1971 and 1972, while in the high school grades the largest losses occurred between 1972 and 1973 and between 1975 and 1976. Black test-takers have increased slowly since 1973 in grades 2, 8, and 12, and they have declined since 1973 in grades 4, 6, and 9; the very large decline in grade 9 in 1976 is probably due to the new configuration of grades within schools. Mexican-American test-takers have increased in nearly every grade since 1971, sometimes by large percentages but never by large numbers.

7. Since 1972 the number of elementary teachers has declined by 4%. The percentage of Anglo elementary teachers has fallen sharply from 63% to 49% and the percentage of black teachers has increased correspondingly from 35% to 51%. Also since 1972 the number of secondary teachers has declined by 11%. The percentage of Anglo secondary teachers has decreased from 69% to 65%, allowing for a small increase in minority secondary teachers. This subdistrict currently claims the smallest number of elementary teachers in the District.

8. Since 1972 the percentage of elementary teachers who were younger than 26 years old decreased from 36% to 16%. Similarly, the percentage of elementary teachers having less than six years of experience decreased from 64% to 48%. These changes were

accompanied by a decrease in the percentage of elementary teachers holding a bachelor's degree only from 80% to 62% and by an increase in those holding a master's degree from 20% to 37%.

Also since 1972 the percentage of secondary teachers who were younger than 26 years old decreased from 20% to 11%. Similarly, the percentage of secondary teachers having less than six years of experience decreased from 41% to 35%. These changes were accompanied by a decrease in the percentage of secondary teachers holding a bachelor's degree only from 69% to 59% and an increase in those holding a master's degree from 32% to 41%.

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                                   -----------|------------
 1149  15 27 27 31      4    6    9   12   11   10   12   10   13   13

1973                                   -----------|-------------
 1109  17 24 26 33      6    7    7    8   12    9   12    9   15   13

1974                         -------------|-------------------
 1081  35 18 19 28     14   11   13    4   10    5    8   10   11   13

1975                           -----------------|---------------
  931  29 17 22 32      9   12   12    4    9    6    9   12   11   15

1976                           -------------------|--------------
  960  29 16 22 34     11   12    9    3    9    6    7   14   12   17

------------------------------------------------------------------------
                ETHI BLACK     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                        ------|----------
  466  48 33 14  5     17   20   18   14   12    7    5    3    3    1

1973                        --------|------------
  625  42 29 21  8     17   15   16   11   12    9    9    3    4    3

1974                       -------|--------------
  617  50 24 16 10     20   17   19    8   11    5    6    9    5    2

1975                       -------|------------------
  632  44 22 20 14     16   18   17    4   11    5    9   10    6    4

1976                       -----------|----------------
  656  43 21 19 16     15   17   17    5   11    5    8    9    7    6

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                               -------|-------------
  101  24 33 30 14      5   10   14   21    7    6   15   13    6    4

1973                             -----------|-----------
  147  28 27 24 20     10   14    8   11   13   13    8    7   12    5

1974                      --------|----------------
  137  47 24 17 12     22   18   12    4   15    4    6   11    5    3

1975                       ---------------|---------------
  158  36 26 21 17     16   12   13    7   14    4    8   11    9    6

1976                      --------|---------------------
  134  48 16 17 19     17   22   11    4    9    4    7   12    7    5

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                              -----------|-------------
 1754  24 29 24 23      8   10   11   13   11    9   11    8   10    9

1973                             ------------|------------
 1893  26 26 24 24     10   10   10    9   12    9   11    7   11    9

1974                       -----------|-------------------
 1839  41 21 18 21     17   14   15    5   11    5    7   10    8    8

1975                         -------------|-----------------
 1727  35 20 21 24     12   15   14    5   10    5    9   11    9   10

1976                         -------------|------------------
 1769  36 18 21 26     13   14   12    4   10    5    7   12   10   12

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETH: ANGLO     GRADE  4        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             -----------|-------------
 1849   25 29 26 19     8   10   12   13   10   11    9   10    9    7

1972                             ----------|------------
 1372   27 31 24 19    10   10   13   13   11   11    8    9   10    5

1973                             ----------|------------
 1255   27 30 26 16    10   10   13   14   10   12    8   11    8    5

1974                            ------------|-------------
 1053   32 23 23 22    13   11   10   12    9    8   10   13    7    8

1975                           -------------|-------------
  950   33 24 21 22    13   13    9   12   10    8    9   11    7    8

1976                        -------------|---------------
  891   39 18 22 20    18   13   11   10    7    8    8   11    6    9

-------------------------------------------------------------------------
                ETH: BLACK     GRADE  4        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ----|--------
  627   57 31 11  1    21   25   21   13    8    7    3    2    1    0

1972                       ------|------
  575   57 30 10  3    21   22   24   15    6    6    3    2    1    1

1973                     -----|--------
  680   60 30  9  1    29   23   18   14    5    6    2    2    1    0

1974                     -------|-------
  616   65 20 11  4    25   24   16   13    6    5    4    4    2    1

1975                     -------|---------
  631   64 20 13  3    28   20   16   13    6    8    3    3    1    1

1976                     ------|-----------
  601   61 21 14  4    29   23   10   13    7    5    5    5    2    1

LARGE CITY NORMS                 -------------|-------------
        25 25 25 25    10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  4        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                         -----|--------
  176  45 36 16  2     14   20   20   19    8    7    4    5    1    1

1972                          -------|-------
  137  35 45 17  4     12   15   20   20   13    7    7    4    1    1

1973                        ------|-----------
  139  50 31 13  6     17   23   15   14   12    7    1    6    4    1

1974                       ---------|-----------
  126  44 28 21  6     21   17    8   12   15    9   11    3    2    2

1975                       -----|-------------
  130  57 20 16  7     18   28   12   12    8    7    7    5    2    2

1976                     ----|---------------
  150  58 21 14  7     27   23    8   13    8    9    4    4    2    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  4        READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                          ----------|------------
 2674  34 30 22 14     12   15   15   14    9    9    8    8    6    5

1972                          ---------|-----------
 2096  36 31 19 13     13   14   17   14   10    9    6    7    7    4

1973                         --------|-------------
 2081  39 30 20 11     17   15   15   14    9    9    6    7    5    3

1974                          ----------|-------------
 1798  44 22 19 15     18   16   12   12    8    7    8    9    5    5

1975                          --------|--------------
 1724  46 22 18 14     19   17   12   12    8    8    6    8    4    5

1976                        ---------|---------------
 1651  49 20 18 13     23   17   10   11    7    7    7    8    4    5

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                    SOUTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                    ETHI ANGLO      GRADE  6         READING
------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                -------------|-------------
 1767  26 25 24 25     11   11    9   10    9   11   10    8   12    9

1972                               -------------|------------
 1357  27 27 24 23     12   11   11   11   10   11    9    9   10    7

1973                              -------------|-------------
 1302  28 24 24 24     13   11   10    9    9   10    9    9   12    8

1974                          -----------|-------------
 1156  37 24 22 16     22   12    9   10    9    7    9   10    7    5

1975                           -------------|----------
 1046  36 25 26 13     21   12    8   10   11   10   11    7    5    4

1976                          -------------|-------------
  864  37 22 21 19     23   10    8   11    7    6   11   10    7    6

------------------------------------------------------------------------
                    ETHI BLACK      GRADE  6         READING
------------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                      ------|-------------
   73  58 22 15  5     32   19    8   12    8    8    4    3    4    1

1972                      -----|---------
  161  55 27 13  5     29   20   12   14    6    9    2    4    2    0

1973                    ----|--------
  751  72 21  5  3     46   21   11   10    5    3    1    2    1    0

1974                   --|--------
  687  78 15  6  1     61   13    8    7    4    2    3    1    0    0

1975                   --|--------
  650  76 16  7  1     58   14    9    7    4    3    3    2    0    0

1976                    ----|---------
  600  71 17  9  3     48   19    9    8    4    4    4    2    1    0

LARGE CITY NORMS                    ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                   ETH: MEXAM     GRADE  6         READING
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       -------|-----------------
  137  51 18 21  9      26   20    8    7    9   10   10    1    7    1

1972                        -------|-----------
  126  47 32 17  5      21   2C   17   11   10    9    5    6    2    1

1973                       -----|-----------
  170  58 24 11  6      25   22   18    8    8    5    4    4    2    2

1974                     ----------|----------
  132  49 29 17  5      33   14   10   16    5    8    8    4    2    1

1975                     ------|------------
  150  55 27 11  7      35   19    8   11    9    2    7    7    2    0

1976                    -------|--------------
  142  60 19 14  7      39   15    7   12    6    4    7    4    4    1

-------------------------------------------------------------------------
                   ETH: TOTAL     GRADE  6         READING
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            --------------|------------
 1997  29 24 23 23      13   12    9   10    9   11    9    7   11    8

1972                           ------------|-----------
 1663  31 27 22 20      14   13   11   11    9   11    8    8    9    6

1973                       ----------|--------------
 2233  45 23 17 16      25   15   11    9    7    7    6    6    8    5

1974                    ---------|---------------
 1990  52 21 16 11      36   12    9    9    7    6    7    6    4    3

1975                     --------|---------------
 1871  52 22 18  8      35   13    8    9    8    7    8    6    3    3

1976                     --------|----------------
 1515  52 20 16 12      34   14    8   10    6    5    8    7    5    3

LARGE CITY NORMS                  -------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                             ETHI ANGLO     GRADE  8        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             ------------|------------
 1938  25 26 26 23      8   13   11   11    9    9   12   10   10    7

1972                           -------------|-----------
 1529  28 28 25 19     14   11   11   10   11   10   11    9    9    5

1973                           -------------|------------
 1531  29 25 26 20     15   10   10    9   10    9   14    8    9    7

1974                          ----------|-----------
 1243  35 30 23 13     15   13   13   15    9   11    8    7    6    3

1975                         ---------|-----------
 1206  37 30 23 10     17   15   13   14    9   12    9    5    5    2

1976                       ---------|-----------------
 1076  41 24 18 17     22   14   12   12    6    8    6    8    8    5

-------------------------------------------------------------------------
                             ETHI BLACK     GRADE  8        READING
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ---|--------
  451  73 16  8  3     48   21    9    8    3    4    4    1    1    0

1972                   ---|---------
  465  72 16  9  2     48   21    9    6    5    4    4    2    1    1

1973                   --|-------
  794  78 14  7  1     54   20   10    4    5    3    3    1    1    0

1974                   ----|----
  773  78 17  3  1     46   24   14    9    2    2    1    1    1    1

1975                   ---|-----
  738  79 17  3  1     50   23   11    7    4    2    1    1    0    0

1976                   ---|-----
  759  81 14  4  1     53   22   10    7    3    3    1    1    1    0

LARGE CITY NORMS                 ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: MEXAM     GRADE  8       READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ----|-------------
  117  58 28  9  5    31   21     9   10   15    3    4    2    3    2

1972                     ------|-------------
  147  57 24 12  6    29   20    14   10    9    5    6    3    2    1

1973                      --------|---------
  149  47 32 17  4    28   13    15   11   11    7    9    2    1    1

1974                      -----|--------
  131  61 26 11  2    27   21    20   11    7    5    5    2    0    1

1975                     --|----------
  148  70 19  9  3    39   26     9    7    7    5    2    1    3    0

1976                     -----|-------
  158  63 22 11  5    32   20    20    9    3    6    4    2    3    1

------------------------------------------------------------------------
                ETH: TOTAL     GRADE  8       READING
------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                         -----------|----------------
 2538  35 25 22 18    16   14    11   10    9    8   10    8    8    6

1972                       -----------|--------------
 2168  39 25 21 15    22   13    11    9   10    9    9    7    7    4

1973                     -----------|---------------
 2496  46 22 19 13    28   13    10    7    8    7   10    6    6    5

1974                      -------|------------
 2169  52 25 15  8    27   17    14   13    7    8    5    5    4    2

1975                     ------|------------
 2117  54 25 15  6    30   18    12   11    7    8    5    3    3    1

1976                     -----|-------------
 2037  58 20 12 10    34   18    12   10    4    6    4    5    5    3

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25    10   10    10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETH: ANGLO     GRADE  9       READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             ----------|-----------
 1552  27 33 24 15      6   14   12   13   16    8   11    9    8    4

1972                            -----------|-----------
 1562  30 31 24 14      7   14   13   11   16    7   11    8    8    4

1973                            ---------|------------
 1316  31 35 22 13      6   16   13   15   16    8   10    6    8    3

1974                            --------|-------------
 1298  33 33 21 13      7   16   14   14   15    7   10    8    6    4

1975                           ---------|-------------
 1159  36 33 19 12      6   19   16   13   16    5    8    8    7    2

1976                           ------|----------------
  949  36 34 19 12      7   19   16   12   16    5    9    7    7    3

------------------------------------------------------------------------
                ETH: BLACK     GRADE  9       READING
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ----|-----
  727  72 23  3  1     27   33   18   11    8    1    2    1    0    0

1972                      ----|-----
  726  72 22  5  0     27   33   17   10    6    2    2    1    0    0

1973                      ----|-----
  812  73 21  4  2     28   33   17    9    7    2    2    0    1    0

1974                      ----|-----
  798  73 22  4  1     27   33   17   10    9    2    2    1    0    0

1975                       ---|-----
  961  72 25  2  1     25   34   20   12    6    1    1    1    0    0

1976                       ----|----
  580  71 25  3  0     21   37   18   11   10    2    1    1    0    0

LARGE CITY NORMS                 -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------
                    ETH: MEXAM      GRADE  9        READING
---------------------------------------------------------------------------
          QUARTILE                         PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                   ------|--------
 111    47 41  7  5      13   26   16   14   19    1    5    4    1    1

1972                                   ----|--------
 105    55 32  9  4      16   24   20   19    9    4    4    1    2    2

1973                                   ----|--------
 127    52 32 11  5      16   24   19   17    9    8    2    2    2    2

1974                                   ---|------
 137    63 28  7  2      13   31   23   13   11    2    3    1    1    1

1975                                 -----|---------
 143    52 37  9  1      13   31   17   16   13    2    5    3    0    1

1976                                 ----|----------
 146    62 27  9  1      17   29   18   16    9    3    5    1    1    0

---------------------------------------------------------------------------
                    ETH: TOTAL      GRADE  9        READING
---------------------------------------------------------------------------
          QUARTILE                         PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                    ------|-------------
2436    42 31 17 10      13   20   14   13   13    5    8    6    5    3

1972                                   -------|-----------
2427    44 29 17 10      14   21   15   11   13    6    8    6    5    2

1973                                   ------|-----------
2281    47 30 15  8      14   22   15   13   12    5    7    4    5    2

1974                                   ------|----------
2254    49 29 14  8      14   23   16   12   12    5    6    5    4    2

1975                                   ----|----------
2288    52 30 11  7      14   26   18   13   11    3    5    5    4    1

1976                                   ----|----------
1688    50 30 13  7      13   26   17   12   13    4    6    4    4    1

LARGE CITY NORMS                            ------------|-------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE 12        READING
------------------------------------------------------------------------
     QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N   1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                                -----------|------------
  959 28 26 28 18      11   12    9   12   11   13   10   10    6    7

1972                               ----------|-----------
  919 31 29 27 14      10   14   11   13   11   13   10    8    4    6

1973                             ---------|------------
  638 36 32 19 13      13   16   15   12   12    8    8    4    7    5

1974                                -----------|-----------
  770 28 26 29 17       8   13   11   11   11   14    9    9    6    7

1975                                -----------|----------
  727 29 28 28 15       7   15   11   13   10   13   10    9    6    6

1976                               ---------|----------
  621 33 31 24 11      12   15   11   14   13   14    8    4    5    5

------------------------------------------------------------------------
                ETHI BLACK     GRADE 12        READING
------------------------------------------------------------------------
     QUARTILE                            PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
   N   1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                  ---|------
  299 79 15  5  1      52   23    6    9    5    4    0    1    0    0

1972                   --|------
  395 82 14  4  0      54   22    8    7    4    2    2    1    0    0

1973                  --|-----
  308 88  9  2  1      61   20   10    4    2    0    1    1    1    0

1974                   ----|----
  407 81 13  5  0      45   28   12    5    4    4    1    0    0    0

1975                    --|------
  331 81 15  3  1      47   27   11    6    5    3    1    0    0    0

1976                    --|------
  374 80 13  6  1      45   29   10    5    4    4    1    2    0    0

LARGE CITY NORMS                  ------------|------------
      25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
---------------------------------------------------------------------------------------
                      ETHI MEXAM     GRADE 12        READING
---------------------------------------------------------------------------------------
           QUARTILE                                      PERCENTILES
FALL      DISTRIBUTION              0    10   20   30   40   50   60   70   80   90   100
  N        1  2  3  4               +....+....+....+....+....+....+....+....+....+....+

1971                                   ------------|-----------
   35     43 31 17  9                26   11    9   17   11    9    6    6    0    6

1972                                    -------|--------
   51     53 29 16  2                25   18   20   14    6   12    4    0    2    0

1973                                   --|------
   38     76 16  8  0                34   37   13    8    0    3    5    0    0    0

1974                                    -----|--------
   58     66 22  9  3                31   24   16   12    5    7    0    2    2    2

1975                                   ------|---------
   40     65 23 10  3                33   23   15   13    5    5    3    3    0    3

1976                                     ----|-------
   53     70 15  9  6                25   32   17    8    4    9    0    2    2    2

---------------------------------------------------------------------------------------
                      ETHI TOTAL     GRADE 12        READING
---------------------------------------------------------------------------------------
           QUARTILE                                      PERCENTILES
FALL      DISTRIBUTION              0    10   20   30   40   50   60   70   80   90   100
  N        1  2  3  4               +....+....+....+....+....+....+....+....+....+....+

1971                                      ------------|------------
 1391     40 24 22 13                20   14    9   12   10   10    8    8    5    5

1972                                     ---------|------------
 1387     47 24 20  9                24   17   11   11    9   10    7    6    3    4

1973                                    --------|-----------
  995     54 24 13  9                29   18   14    9    8    5    6    3    5    4

1974                                      --------|-------------
 1245     47 22 20 11                21   19   11    9    9   10    6    6    4    5

1975                                      --------|--------------
 1113     46 24 20 10                20   19   11   11    9   10    7    6    4    4

1976                                     -------|-------------
 1065     52 24 17  8                24   21   11   10    9   10    5    3    3    3

LARGE CITY NORMS                                 ------------|-------------
          25 25 25 25                10   10   10   10   10   10   10   10   10   10

                                    +....+....+....+....+....+....+....+....+....+....+
                                    0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                                  -----------|-----------
 1132  18 29 26 27       7    7    9   12   12   10   12   11   10   10

1973                                 ------------|-----------
 1103  22 23 26 26      10    8    9    9   10   11   12   11   10   11

1974                            ----------|---------------
 1081  41 20 16 23      18    6   17    7   13    7    5    7   12    7

1975                            -------------|-----------------
  930  35 21 14 29      14    6   16    7   14    6    3    8   14   12

1976                            -------------|-----------------
  946  35 20 15 29      15    7   12    7   13    6    6    8   13   13

-------------------------------------------------------------------------
                ETHI BLACK     GRADE  2        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                     -----|--------
  462  70 19  8  3      39   21   14   10    5    5    2    1    1    1

1973                      ------|----------
  625  57 27 11  6      30   21   11   13    8    5    4    3    3    1

1974                       -------|------------
  617  58 24  8 11      29    9   20    9   15    3    3    4    5    3

1975                       -------|------------
  656  52 25  9 14      25    8   19    9   15    4    2    5    8    5

1976                         -----|-----------------
  653  51 21 11 17      23    7   20    8   13    4    4    6    8    5

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETHI MEXAM     GRADE  2        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          -------|---------------
   99  37 28 27  7     10   21   13   10   11   12   11    6    4    1

1973                        ----------|------------
  146  42 25 24  9     23   12   11   13    8   14   10    2    4    3

1974                        -----|------------
  137  50 28  5 16     25    7   18   12   17    1    1    7    6    6

1975                        -----------|-----------
  158  49 22 11 18     23    8   18   11   11    4    4    4    9    6

1976                        -----|------------
  132  52 29  5 14     20   10   23   10   19    3    2    2    8    5

------------------------------------------------------------------------
                ETHI TOTAL     GRADE  2        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1972                          -----------|--------------
 1730  34 27 21 19     16   12   11   12   10    9    9    8    7    7

1973                         ------------|---------------
 1886  35 25 22 18     18   13   10   10    9    9    9    8    7    7

1974                        -----------|---------------
 1839  47 22 12 18     22    7   18    8   14    5    4    6    9    6

1975                        -----------|------------------
 1750  43 23 12 23     19    7   17    8   14    5    3    7   11    9

1976                        -----------|------------------
 1750  42 21 13 23     19    8   16    8   14    5    5    6   11   10

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                          SOUTHEAST  SUBDISTRICT
               INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETHI ANGLO     GRADE  4        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             --------|------------
 1849   31 35 22 13     10   14   13   18   10   10    9    8    4    3

1972                            -------|-----------
 1372   34 34 20 12     13   15   13   17   11   11    7    6    5    3

1973                           ---------|----------
 1255   35 33 23 10     14   15   13   15   11   12    9    5    4    2

1974                         -------------|--------------
 1038   37 21 23 19     19   12    9   12    7   10    9    9   10    4

1975                          ------------|--------------
  945   36 22 24 18     18   11   10   11    7   10    9   11    8    4

1976                       -----------|-----------------
  880   45 19 17 19     25   12   11    8    8    8    6    8    8    6

-------------------------------------------------------------------------
                 ETHI BLACK     GRADE  4        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      -----|------
  627   65 26  7  1     27   28   18   13    5    4    3    1    0    0

1972                       -----|-------
  575   61 31  7  2     22   29   17   16    8    4    2    1    1    1

1973                      -----|------
  680   65 27  7  1     30   25   18   16    4    4    3    1    1    0

1974                    ------|------------
  608   67 16 13  4     38   19   11    9    5    6    5    4    2    1

1975                    -----|-------------
  622   64 19 13  4     40   16   12    9    6    7    5    3    2    0

1976                    ------|-------------
  594   64 16 14  6     35   21    9    9    6    6    6    5    3    1

LARGE CITY NORMS                  -------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                     SOUTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                        ETHI MEXAM     GRADE  4        LANGUAGE
----------------------------------------------------------------------------
            QUARTILE                             PERCENTILES
FALL      DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N         1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                          -------|----------
  176     51 32 14  3      23   18   17   16    8    7    4    4    2    0

1972                              -------|---------
  137     36 40 19  4      16   12   14   23   12   12    5    4    1    0

1973                          -------|-------
  139     53 31  9  7      20   20   20   17    6    3    4    4    4    1

1974                          -----------|-------------
  126     42 25 23 10      19   16    9   15    8   12    8    7    5    2

1975                         ------|----------------
  128     55 18 21  6      25   23   10    7    8   12    8    3    5    0

1976                        -----|-------------
  150     57 19 17  7      33   19    9   13    3    5   10    6    3    1

----------------------------------------------------------------------------
                        ETHI TOTAL     GRADE  4        LANGUAGE
----------------------------------------------------------------------------
            QUARTILE                             PERCENTILES
FALL      DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N         1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                              ------|-----------
 2674     40 33 18  9      15   18   15   17    9    9    7    6    3    2

1972                            --------|---------
 2096     42 33 16  9      15   19   14   17   10    9    6    5    4    2

1973                           --------|----------
 2081     46 30 17  7      19   19   15   15    8    9    6    4    3    2

1974                         ------------|--------------
 1775     47 20 20 13      25   15    9   11    6    9    8    7    7    3

1975                         ----------|---------------
 1708     48 20 20 12      27   14   10   10    7    9    7    8    6    2

1976                       ---------|------------------
 1632     53 18 16 13      29   16   10    9    7    7    6    7    6    3

LARGE CITY NORMS                      ------------|-------------
          25 25 25 25      10   10   10   10   10   10   10   10   10   10

                         +....+....+....+....+....+....+....+....+....+....+
                         0    10   20   30   40   50   60   70   80   90   100
----------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                 ETH: ANGLO      GRADE  6        LANGUAGE
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           -------------|--------------
 1767  30 25 21 23     14   11   10    9   12    8    9    9   11    8

1972                          ------------|-------------
 1357  34 25 21 20     14   15    9    9   12    8   10    7    9    7

1973                        -------------|--------------
 1302  33 26 21 19     16   14    8   11   11    7    9    9    8    8

1974                      -------------|------------
 1146  41 23 23 13     22   14   11    7   11    9    9    8    6    3

1975                      --------------|-----------
 1040  39 26 26 10     21   13   10    6   14   10   11    8    5    1

1976                     ------------|--------------
  857  44 21 23 12     25   14   10    6   11    9    9    7    6    4

-------------------------------------------------------------------------
                 ETH: BLACK      GRADE  6        LANGUAGE
-------------------------------------------------------------------------
        QUARTILE                             PERCENTILES
FALL  DISTRIBUTION   0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ---------|---------------
   73  53 18 18 11     29   19    8    7    8    8    7    7    5    1

1972                     -------|------------
  161  55 27 11  7     30   16   12    9   14    5    6    1    4    3

1973                  ---|---------
  751  73 16  8  3     48   18   11    7    5    5    3    2    1    0

1974                 -|-----------
  675  76 15  8  1     60   12    7    4    8    4    3    1    1    0

1975                 ---|-----------
  644  73 15 11  1     52   16    9    5    7    6    4    1    0    0

1976                 ----|------------
  593  71 16 10  3     49   16   10    7    6    5    4    2    1    1

LARGE CITY NORMS                 ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90   100
-------------------------------------------------------------------------
```

```
                          SOUTHEAST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                      ETHI MEXAM     GRADE  6        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                       PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                    -----------|------------
 137   45 28 16 11     28   10    9   14   12   11    5    4    5    2

1972                      --------|------------
 126   48 26 21  6     23   15   13   12   11   11    7    4    2    2

1973                    ------|-----------
 170   55 28 10  7     31   18   11   12   11    4    4    5    2    2

1974                    -------|-------------
 132   53 27 17  4     30   19   10    9   11    5    7    8    0    2

1975                   -----|-------------------
 151   56 17 23  4     34   19    8    5    9   11    6    9    1    0

1976                 -------|---------------
 141   57 21 16  6     38   17    5   11    7    6    5    6    1    3

------------------------------------------------------------------------
                      ETHI TOTAL     GRADE  6        LANGUAGE
------------------------------------------------------------------------
        QUARTILE                       PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                         -------------|-------------
1997   32 25 21 22     15   11   10    9   12    8    9    8   10    8

1972                        -----------|-------------
1663   37 25 20 18     16   15   10    9   12    8    9    6    8    6

1973                    ---------|---------------
2233   48 23 16 13     28   15    9   10    9    6    6    6    5    5

1974                  ---------|--------------
1968   54 20 18  8     35   14    9    6   10    7    7    6    4    2

1975                  ----------|--------------
1860   52 21 20  6     33   14    9    6   11    9    8    6    3    1

1976                  ---------|--------------
1600   55 19 17  8     35   15   10    6    9    7    7    5    4    2

LARGE CITY NORMS                    -------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  8        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ------------|------------
 1938  31 27 23 20     12   12   13   10   10    9    9    9    8    7

1972                         -------------|------------
 1529  35 24 23 18     17   12   11    9   10   10    9    8    8    6

1973                         -----------|---------------
 1531  37 26 20 18     17   12   12   10   12    8    8    7    8    7

1974                      ----------|-------------
 1230  46 24 22  9     26   15    9   10   10   10    8    6    5    1

1975                     ----------|------------
 1187  48 24 23  6     30   13    9   10   10   13    8    5    3    1

1976                    -----------|---------------
 1066  48 19 20 13     31   12    8    9    7   10    7    7    6    3

------------------------------------------------------------------------
                ETHI BLACK     GRADE  8        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                               PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|---------
  451  70 18 10  2     46   18   12    5    7    4    5    1    2    0

1972                   -----|-----------
  465  67 18 10  5     43   18   12    8    5    5    5    2    2    1

1973                  ----|---------
  794  74 18  7  2     52   15   11    7    5    2    3    3    1    0

1974                  --|--------
  749  82 13  4  1     63   13    8    6    4    3    1    1    1    1

1975                 -|-------
  732  83 12  5  0     68   11    6    5    4    3    1    0    0    0

1976                  --|---------
  736  79 13  6  2     63   11    7    6    5    3    2    1    1    0

LARGE CITY NORMS                ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                       SOUTHEAST  SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

***********************************************************************
                      ETHI HEXAM     GRADE  8       LANGUAGE
***********************************************************************
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       -----|----------
 117  56 27 10  7     19   17   26    9   12    3    5    3    2    3

1972                     -------|---------------
 147  50 24 16  9     26   15   15   10    9    8    3    8    3    2

1973                     -------|------------
 149  50 28 14  8     27   15   15   11   11    8    3    6    1    4

1974                  -------|-----
 129  62 26 11  2     40   16   17    9    6    6    3    2    1    0

1975                ----|---------
 145  69 18 11  2     50   12   12    8    4    6    3    3    1    0

1976                 -------|----------
 157  59 22 16  3     42   13    6   15    5    9    4    5    1    1

***********************************************************************
                      ETHI TOTAL     GRADE  8       LANGUAGE
***********************************************************************
       QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                      ----------|----------------
2538  39 26 20 16     19   13   13    9   10    8    8    7    7    5

1972                      ----------|---------------
2168  43 23 19 15     23   14   12    9    9    9    8    7    7    5

1973                    ---------|---------------
2496  49 23 15 12     29   13   12    9   10    6    6    6    5    4

1974                  ------|--------------
2127  59 20 15  6     40   14    9    9    6    8    5    4    3    1

1975                 -----|----------------
2089  62 19 15  4     45   12    8    8    7    9    5    3    2    0

1976                 ------|-----------------
2002  61 17 14  8     44   12    7    8    6    7    5    4    4    2

LARGE CITY NORMS                ------------|------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
***********************************************************************
```

```
                     SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETH: ANGLO      GRADE  9        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                           ----------|---------------
 1552  32 24 23 21     12   11   13   15    5   11    8   11   10    5

1972                           ----------|--------------
 1562  33 26 22 20     11   12   13   16    6   10    8   10   10    5

1973                          ---------|---------------
 1307  36 25 21 18     14   13   13   16    5   11    6    8    9    4

1974                         ---------|--------------
 1294  40 26 19 16     16   14   14   15    7    8    6    9    8    3

1975                          --------|------------
 1145  41 26 19 15     15   15   15   17    5    9    6    9    7    4

1976                          --------|------------
  945  36 29 20 14     14   13   15   16    7   10    7    7    8    3

------------------------------------------------------------------------
                ETH: BLACK      GRADE  9        LANGUAGE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                    ------|--------
  727  66 22  9  3     36   19   16   13    4    5    4    2    1    0

1972                     -----|-------
  726  67 21  9  3     33   21   17   13    4    5    3    2    1    0

1973                     -----|--------
  810  63 24 10  3     31   20   17   16    3    4    4    2    1    0

1974                    ------|-------
  782  64 20  8  3     37   18   20   12    3    3    3    3    1    0

1975                     -----|-------
  946  67 23  9  1     36   19   19   13    3    5    2    2    1    0

1976                     -----|------
  576  70 21  6  2     33   21   22   13    3    3    2    3    1    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                  SOUTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                  ETHI MEXAM      GRADE  9        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION 0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                    ------|----------
  111 50 26 15  8   21   18   21   13    5    5    6    6    5    1

1972                    ------|-------
  105 56 29  9  7   24   15   22   22    2    8    1    3    4    0

1973                       -------|-------------
  127 43 28 20  9   20   12   15   16    9    9    5   11    1    3

1974                      ------|---------
  133 49 29 14  8   14   26   16   17    5    6    5    6    5    2

1975                   -----|-----------
  142 54 28 12  5   25   22   11   20    6    3    5    6    4    1

1976                  ------|--------
  144 58 26 15  2   25   21   17   16    5    8    4    4    1    0

-----------------------------------------------------------------------
                  ETHI TOTAL      GRADE  9        LANGUAGE
-----------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION 0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4 +....+....+....+....+....+....+....+....+....+....+

1971                       -------|--------------
 2436 43 24 19 14   20   14   14   14    5    9    6    8    7    3

1972                       -------|--------------
 2427 44 24 17 14   19   15   15   15    5    8    6    7    7    3

1973                    ---------|------------
 2270 46 25 17 12   21   15   14   16    5    9    5    6    5    3

1974                    ------|-------------
 2230 51 24 14 11   23   16   16   14    6    6    5    7    5    2

1975                    ------|----------
 2258 53 25 14  9   24   17   16   16    4    7    4    6    4    2

1976                    --------|----------
 1678 50 26 15  9   22   17   18   15    6    7    5    5    5    2

LARGE CITY NORMS                ------------|-------------
      25 25 25 25   10   10   10   10   10   10   10   10   10   10

                   +....+....+....+....+....+....+....+....+....+....+
                   0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                    SOUTHEAST  SUBDISTRICT
          INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                  ETHI ANGLO      GRADE 12        LANGUAGE
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                            ------------|-------------
   959  32 23 23 22     12   15    7   13    9   10   10    7   10    8

1972                          -------------|------------
   919  35 26 23 16     13   14   10   12   11   10    9    8    7    5

1973                          ---------|---------------
   635  38 26 21 14     18   17   12    9    9    7   11    6    6    5

1974                          ------------|--------------
   771  34 26 23 17     14   14   11   12    9    9   11    7    7    6

1975                          ------------|-------------
   728  34 28 22 16     14   15    9   14   11    9    9    5    8    6

1976                          ------------|------------
   601  36 27 24 14     16   14   10   11   12   11   10    7    5    4

--------------------------------------------------------------------------
                  ETHI BLACK      GRADE 12        LANGUAGE
--------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                     -----|------------
   299  65 19 11  5     38   20    9    9    7    4    6    1    3    2

1972                   -----|--------
   395  73 16  9  1     47   19   10    8    5    6    4    1    1    0

1973                   ---|---------
   308  75 18  5  3     54   18    8   10    3    3    2    1    2    1

1974                   -----|----------
   403  72 19  6  2     42   25    8   13    4    4    2    2    1    0

1975                   -----|-------
   321  75 16  7  1     44   22   12    7    6    4    3    1    0    0

1976                   ----|--------
   356  77 12  9  2     49   21    9    6    4    3    5    2    1    0

LARGE CITY NORMS                  ------------|--------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETHI MEXAM     GRADE 12        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                          ------------|-------------
   35  34 31 20 14     23   11    3   17   11    6   11    6    6    6

1972                         -------|----------
   51  57 25 12  6     25   20   20   10    8    2   10    4    2    0

1973                           ----|--------
   39  54 28 13  5     21   31   15   13    3   10    3    0    5    0

1974                         ------|--------------
   58  64 16 14  7     31   24   12    3    9    7    7    2    5    0

1975                         ----|-----------
   40  68 23  3  8     35   20   13   10   13    3    0    0    8    0

1976                         ---------|---------
   48  48 31 15  6     33   15   10   15    6    8    6    2    2    2

-------------------------------------------------------------------------
                ETHI TOTAL     GRADE 12        LANGUAGE
-------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                           ------------|---------------
 1391  40 23 19 17     19   16    8   12    9    8    9    5    8    6

1972                          ---------|-------------
 1387  47 24 18 11     24   16   10   11    9    8    8    5    5    3

1973                         --------|--------------
  992  51 23 16 10     29   18   11    9    7    6    8    4    5    4

1974                          ---------|-------------
 1242  48 23 17 12     24   18   10   12    7    7    8    5    5    4

1975                          ---------|-------------
 1104  47 24 17 12     24   17   10   11    9    8    7    4    6    4

1976                        ---------|---------------
 1022  51 21 18  9     28   17    9    9    9    8    8    5    4    3

LARGE CITY NORMS                         ------------|--------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-------------------------------------------------------------------------
                ETHI ANGLO     GRADE  2      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                                 -----------|-------------
 1146  22 24 30 24       7    9   11    9   10   14    9   13    8   10

1973                                 -----------|-----------
 1109  22 24 32 22       9    9   10   10    9   13   12   11    8    9

1974                              -----------|----------
 1081  25 30 32 14      15    8   10   10   12   13   12    8    8    4

1975                              -----------|----------
  927  21 31 32 16      11    8   11   12   10   12   13    8    9    5

1976                              -------------|----------
  938  21 28 34 17      10    8    9   10   11   11   16   10   10    4

-------------------------------------------------------------------------
                ETHI BLACK     GRADE  2      MATHEMATICS
-------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                      -----|-----------
  463  64 20 13  3      32   22   16   10    5    7    3    4    1    1

1973                       -------|----------
  625  53 24 15  7      24   19   16   11    7    7    6    5    2    2

1974                      ---------|----------
  617  47 37 14  3      29   15   13   12   16    7    5    2    2    1

1975                      ---------|----------
  651  44 33 18  5      26   14   14   13   10    9    7    4    3    1

1976                      ---------|----------
  656  42 34 21  4      27   13   11   12   12    9    9    2    3    1

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

```
                        SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                     ETHI MEXAM      GRADE  2       MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                           --------|-------------
  100 28 37 22 13        7   14   14   18   12    7   11    9    3    5

1973                           ----------|---------
  147 32 33 29  5       12   12   15   12   15   12   12    7    2    3

1974                       -------|----------
  137 45 36 16  3       24   16   14   15   12    6    6    4    1    1

1975                       -------|---------------
  156 41 32 22  5       22   16   13   11   11   10   10    3    4    1

1976                         ----------|----------
  134 28 39 31  3       10   16   13   12   16   16   10    4    2    1

------------------------------------------------------------------------
                     ETHI TOTAL      GRADE  2       MATHEMATICS
------------------------------------------------------------------------
        QUARTILE                         PERCENTILES
FALL  DISTRIBUTION   0   10   20   30   40   50   60   70   80   90   100
  N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1972                          ------------|-------------
 1747 34 24 25 18       14   12   12   10    9   12    8   10    6    7

1973                          ------------|------------
 1893 33 25 26 16       14   12   12   11    9   11   10    9    6    6

1974                         ----------|----------
 1839 34 33 24  9       20   11   11   11   13   11    9    6    6    3

1975                         ----------|-------------
 1740 32 32 26 11       18   11   12   12   10   11   11    6    7    3

1976                         ------------|-------------
 1747 30 31 28 11       17   11   10   11   12   11   13    7    7    3

LARGE CITY NORMS                 ------------|------------
      25 25 25 25       10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------
                      ETHI ANGLO     GRADE  4      MATHEMATICS
--------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                             --------|-----------
 1849   34 33 22 11      11   14   16   15   12    9   10    5    5    3

1972                            -------|-----------
 1372   37 34 18 10      12   16   17   16   12    6    8    7    4    2

1973                            ---------|----------
 1255   34 37 20  9      13   12   17   16   13    8   10    5    4    2

1974                        -----------|---------------
 1050   44 22 24 11      24   12    8   13    7    9   10    7    7    2

1975                        -----------|---------------
  945   42 22 22 14      22   14    8   14    6    8   10    6    9    3

1976                      -------------|---------------
  884   47 20 19 13      31   12    5   12    7    6    9    6    9    3

--------------------------------------------------------------------------
                      ETHI BLACK     GRADE  4      MATHEMATICS
--------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
  N      1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                       ----|------
  627   70 25  5  0      29   25   22   12    6    2    2    0    0    0

1972                        ---|-------
  575   66 28  5  1      23   27   25   12    7    2    2    1    1    0

1973                      ----|-----
  680   70 24  5  1      32   24   22   12    5    2    3    1    0    0

1974                   --|---------
  611   79 12  8  1      59   15    6    8    2    4    3    1    1    0

1975                   --|-------
  625   80 13  6  1      59   17    5    9    3    2    3    1    1    0

1976                   --|----------
  597   74 14  8  3      53   15    9    8    4    4    3    2    2    1

LARGE CITY NORMS                   ------------|-------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                          SOUTHEAST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                      ETHI MEXAM      GRADE  4       MATHEMATICS
---------------------------------------------------------------------------
           QUARTILE                            PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                         ------|---------
   176  52 32 11  5     19   18   20   18    9    6    5    3    1    1

1972                         --------|---------
   137  47 32 15  5     20   15   21   13   10    4    8    6    2    0

1973                         -----|----------
   139  55 29 14  1     21   25   17   12   10    9    2    4    1    0

1974                      -------|----------
   130  57 22 15  5     34   18   12   12    4    5    9    2    3    2

1975                      ----|-------------
   130  65 21 13  2     39   22    6   11    7    5    7    1    1    1

1976                    ----|-------------
   149  69 19 11  1     45   18    9   10    6    5    6    1    0    0

---------------------------------------------------------------------------
                      ETHI TOTAL      GRADE  4       MATHEMATICS
---------------------------------------------------------------------------
           QUARTILE                            PERCENTILES
FALL    DISTRIBUTION   0    10   20   30   40   50   60   70   80   90  100
 N       1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                          -------|-----------
  2674  44 32 17  8     16   17   18   15   11    7    8    4    4    2

1972                          -------|----------
  2096  46 32 14  7     15   19   19   15   11    5    6    6    3    2

1973                          ------|----------
  2081  47 32 15  6     20   17   19   14   10    6    7    4    3    1

1974                    ---------|----------------
  1794  56 19 18  7     37   14    8   11    6    7    7    4    5    2

1975                    -------|----------------
  1713  58 19 16  8     37   16    7   12    5    6    7    4    5    2

1976                    ------|----------------
  1639  59 18 14  8     40   14    7   11    6    5    6    4    6    2

LARGE CITY NORMS                   -------------|-------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90  100
---------------------------------------------------------------------------
```

```
                      SOUTHEAST  SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                  ETH: ANGLO      GRADE  6       MATHEMATICS
--------------------------------------------------------------------------
       QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ----------|-------------
 1767  33 29 23 15      16   11   13   11   11    8    8   10    6    5

1972                          ----------|-------------
 1357  34 31 23 13      14   13   11   14   12    9    8    9    7    3

1973                          ----------|------------
 1302  34 29 23 13      16   12   13   11   12   10    8   10    5    4

1974                      -----------|--------------
 1152  43 24 22 11      25   15   10    9    9   11    7    6    6    3

1975                      ----------|------------
 1041  44 29 18  9      24   15   12   10   11    9    7    5    5    2

1976                    ----------|-----------------
  857  49 21 20 11      31   13   10    6    9    9    8    6    5    2

--------------------------------------------------------------------------
                  ETH: BLACK      GRADE  6       MATHEMATICS
--------------------------------------------------------------------------
       QUARTILE                            PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N      1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                  -----|-----------
   73  62 22 10  7      40   12   12   12    7    3    3    5    3    3

1972                    ------|-----------
  161  53 31 11  5      30   17   13   12   12    3    6    4    1    1

1973                  ----|-------
  751  74 18  7  1      46   19   14    8    5    4    2    1    0    0

1974                 -|------
  612  84 11  4  0      67   15    7    4    3    2    1    1    0    0

1975                 -|-------
  646  83 12  4  0      67   13    8    4    3    2    2    1    0    0

1976                 -|-------
  594  81 14  5  0      63   15    7    4    5    3    2    1    0    0

LARGE CITY NORMS                 ------------|------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                      SOUTHEAST  SUBDISTRICT
           INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                 ETHI MEXAM     GRADE  6     MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                        --------|-----------
  137   47 29 20  4      26    8   20   15    7    9    6    6    1    1

1972                          ---------|-------
  126   40 41 16  3      21   12   13   21   13    6    6    6    2    0

1973                       -------|----------
  170   55 28 12  5      29   18   13    9   13    5    4    3    3    2

1974                       ---|-------------
  130   65 22 11  3      38   23    9    6   10    7    2    2    2    1

1975                     ------|-------------
  149   64 19 11  6      39   19   12    4    9    7    3    3    3    0

1976                    ----|-------------
  143   67 19  8  6      49   17    5    6    8    3    3    3    3    1

---------------------------------------------------------------------------
                 ETHI TOTAL     GRADE  6     MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL   DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                          ------------|-------------
 1997   35 29 23 13      17   11   13   12   11    8    8   10    5    5

1972                           ----------|------------
 1663   36 31 21 11      17   13   12   14   12    8    8    8    6    3

1973                       ---------|-------------
 2233   49 25 17  8      27   15   13   10   10    7    6    7    3    2

1974                     ------|-----------------
 1909   58 20 15  7      39   15    9    7    7    8    5    4    4    2

1975                     ------|--------------
 1861   59 22 13  6      40   14   11    8    8    6    5    3    3    1

1976                    -----|---------------
 1602   62 18 13  6      45   14    8    5    8    6    5    4    3    1

LARGE CITY NORMS                    ------------|------------
        25 25 25 25      10   10   10   10   10   10   10   10   10   10

                       +....+....+....+....+....+....+....+....+....+....+
                       0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                          ---------|-------------
 1938  36 28 19 17     15   15   13   12    9    9    7    7    7    6

1972                        ------------|-----------
 1529  40 28 19 13     18   16   13   11   11    9    8    6    5    4

1973                        ---------|------------
 1531  43 25 19 13     20   16   14    9    9    9    7    7    5    4

1974                        --------|----------
 1237  42 30 19  9     18   17   14   13   11    9    8    4    3    3

1975                     ---------|------------
 1196  47 27 19  6     27   15   11   12    9   10    8    4    3    1

1976                    ---------|---------------
 1088  51 22 16 11     31   14    9   11    7    7    6    6    5    3

------------------------------------------------------------------------
                ETHI BLACK     GRADE  8      MATHEMATICS
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ---|-------
  451  76 19  5  0     50   20   12    8    5    2    2    1    0    0

1972                   ---|-------
  465  78 17  4  1     50   22   12    7    4    2    1    0    1    0

1973                   --|------
  794  82 13  4  1     57   19   12    5    2    2    1    1    0    0

1974                   --|-----
  767  84 13  2  1     56   21   11    6    2    2    0    0    0    1

1975                  --|----
  737  86 11  3  0     65   17    7    5    3    2    1    0    0    0

1976                  -|------
  733  84 10  4  1     65   17    5    6    3    3    1    1    0    0

LARGE CITY NORMS                  ------------|------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-----------------------------------------------------------------------
               ETHI MEXAM    GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
         QUARTILE                     PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ---------|--------
  117  50 31 14  6    25   21   15   13    7    4    9    3    2    2

1972                     ------|-------
  147  58 30  9  3    24   24   18   16    6    5    1    5    1    1

1973                    -----|----------
  149  61 21 11  7    34   19   15    9    5    9    3    3    3    1

1974                    ----|---------
  138  65 25  9  1    33   28   10   11    8    6    3    1    0    0

1975                  ---|------
  150  80 11  7  1    51   19   11    7    3    3    3    1    1    1

1976                  ----|-----------
  158  63 22 13  3    41   20    8   12    4    9    3    1    1    1

-----------------------------------------------------------------------
               ETHI TOTAL    GRADE  8      MATHEMATICS
-----------------------------------------------------------------------
         QUARTILE                     PERCENTILES
FALL  DISTRIBUTION  0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                      ---------|-------------
 2538  44 26 16 13    22   16   13   11    8    8    6    6    5    5

1972                     --------|------------
 2168  49 26 15 10    25   18   13   10    9    7    6    5    4    3

1973                    -------|------------
 2496  57 21 14  9    32   17   13    8    7    7    5    5    3    2

1974                   ------|------------
 2163  59 24 12  5    32   19   12   10    8    6    5    3    2    2

1975                  -----|------------
 2107  63 20 13  4    42   16    9    9    7    6    5    3    2    1

1976                  ----|-------------
 2027  64 18 11  7    44   16    7    9    6    6    4    3    3    2

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0   10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
            INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                ETHI ANGLO      GRADE  9       MATHEMATICS
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                               -------|------------
1552  18 34 34 14      3    8   17   12   11   19   11    7    8    3

1972                               -------|------------
1562  21 33 34 12      3    9   19   13   11   19   11    6    8    2

1973                               -------|--------
1313  20 37 32 11      2    9   21   14   12   18   11    5    7    2

1974                               -------|--------
1328  23 35 34  8      2   10   23   11   12   20   10    5    5    2

1975                               -------|--------
1159  21 36 34  9      3    8   22   11   14   21   11    4    5    1

1976                               -------|--------
 955  24 38 31  8      3   12   22   13   13   17   10    5    5    1

-------------------------------------------------------------------------
                ETHI BLACK      GRADE  9       MATHEMATICS
-------------------------------------------------------------------------
        QUARTILE                          PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
 N    1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                           --------|---
 727  32 45 23  1      6   15   27   17   12   16    6    1    0    0

1972                           ----|-------
 726  37 43 20  1      6   16   29   15   13   15    4    1    0    0

1973                           ----|-------
 811  35 42 22  1      7   15   29   13   13   16    6    1    0    0

1974                           --------|---
 821  35 45 19  0      6   17   27   17   13   15    3    1    0    0

1975                           --------|---
 961  33 43 24  1      3   15   29   16   13   18    5    1    0    0

1976                           ----|-------
 577  36 44 20  0      5   15   31   16   13   15    5    1    0    0

LARGE CITY NORMS                 ------------|------------
      25 25 25 25     10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
--------------------------------------------------------------------------
                  ETHI MEXAM      GRADE  9      MATHEMATICS
--------------------------------------------------------------------------
           QUARTILE                       PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             --------|-------
  111   28 33 34  5      5   14   18   15    9   27    7    3    2    0

1972                                 ----|-------
  105   22 48 26  5      3   10   27   17   13   17    8    3    2    1

1973                             --------|-------
  127   30 41 24  5      1   15   29   14   12   15    8    2    3    1

1974                             --------|-------
  135   32 43 22  3      5   12   27   14   17   17    4    2    1    1

1975                             --------|-------
  143   27 47 25  1      4   10   26   16   17   19    5    1    1    0

1976                             ----|-------
  145   32 46 21  1      2   17   37   12   10   17    4    1    1    0

--------------------------------------------------------------------------
                  ETHI TOTAL      GRADE  9      MATHEMATICS
--------------------------------------------------------------------------
           QUARTILE                       PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N       1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                                 -------|--------
 2436   23 37 31  9      4   11   21   14   11   18   10    5    5    2

1972                             --------|----------
 2427   26 37 29  8      4   11   22   14   12   18    9    4    5    1

1973                             --------|-------
 2277   26 39 28  7      4   11   24   14   12   17    9    4    4    1

1974                             --------|-------
 2305   28 39 28  5      4   12   25   14   13   18    8    4    3    1

1975                             --------|-------
 2290   26 40 29  5      3   11   25   13   13   20    8    3    3    1

1976                             --------|-------
 1690   28 41 26  4      3   13   26   14   12   16    8    3    3    1

LARGE CITY NORMS                   ------------|------------
        25 25 25 25     10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90   100
--------------------------------------------------------------------------
```

```
                  SOUTHEAST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

---------------------------------------------------------------------------
                        ETHI ANGLO     GRADE 12      MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                               ---------|-------------
  959   29 31 25 15         9   13   15   14   10   10    8   10    8    3

1972                               -----------|-----------
  919   26 35 25 14         7   11   15   14   13   10    9   10    8    2

1973                            ----------|-----------
  637   34 35 22  9        12   15   14   12   16    9   11    4    4    4

1974                               ---------|-------------
  764   25 37 23 14         6   12   16   17   12    9    9    9    8    4

1975                                  --------|-----------
  722   25 34 27 14         5   11   16   16   10   11   10   10    7    3

1976                               ---------|---------
  622   29 39 22 10         8   14   18   18   12    9    8    8    5    2

---------------------------------------------------------------------------
                        ETHI BLACK     GRADE 12      MATHEMATICS
---------------------------------------------------------------------------
        QUARTILE                           PERCENTILES
FALL    DISTRIBUTION    0    10   20   30   40   50   60   70   80   90   100
  N      1  2  3  4     +....+....+....+....+....+....+....+....+....+....+

1971                          --|---------
  299   65 27  6  2        20   30   24   14    4    3    3    0    1    0

1972                       -----|------
  395   70 24  5  1        28   28   23   10    6    3    1    2    0    0

1973                        --|-------
  308   75 21  4  0        37   27   18    6    7    1    2    1    0    0

1974                          -----|------
  404   59 36  5  0        19   27   24   18    7    2    2    1    0    0

1975                          -----|------
  328   59 36  5  1        18   25   31   14    7    3    1    1    0    0

1976                          -----|------
  375   58 37  5  1        17   26   28   17    7    2    2    1    0    0

LARGE CITY NORMS                    -------------|------------
        25 25 25 25        10   10   10   10   10   10   10   10   10   10

                        +....+....+....+....+....+....+....+....+....+....+
                        0    10   20   30   40   50   60   70   80   90   100
---------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
*************************************************************************
                ETH: MEXAM     GRADE 12      MATHEMATICS
*************************************************************************
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            ----------|-------
   35  31 43 17  9      11   11   17   17   17   17    0    0    9    0

1972                       --------|-----------
   51  47 29 20  4      22   14   20   10   12   10    8    2    2    2

1973                       ----|--------
   40  55 33 10  3      13   28   20   15   13    5    5    0    3    0

1974                         ---|------
   59  51 42  5  2      12   29   20   22   10    0    3    2    2    0

1975                       --------|---
   40  45 38 13  5      10   30   25   13    5   10    3    0    5    0

1976                       -----|------
   54  56 35  7  2      17   20   28   19    7    4    4    2    0    0

*************************************************************************
                ETH: TOTAL     GRADE 12      MATHEMATICS
*************************************************************************
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                         ---------|------------
 1391  37 31 21 12      11   16   17   14    9    8    7    8    7    3

1972                         ---------|----------
 1387  39 32 19  9      14   16   18   13   11    8    7    7    5    2

1973                       -------|------------
  996  47 31 16  6      20   19   16   11   13    6    8    3    3    2

1974                         ---------|----------
 1238  38 37 17  9      10   18   19   17   10    6    7    6    5    2

1975                         ---------|------------
 1107  36 35 20 10       9   16   21   16    9    8    7    7    5    2

1976                         ------|--------
 1068  41 38 15  6      11   19   22   17    9    6    5    6    3    1

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
*************************************************************************
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI ANGLO     GRADE  9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                             ----------|-------
 1552  33 32 25 11      7   18   17    8   15   11   11    4    6    3

1972                           ------------|-------
 1562  33 32 26  9      9   17   16    8   15   12   11    5    5    2

1973                           -------|-------------
 1346  34 33 24  8      9   17   18    9   15   12   11    4    5    2

1974                           -------|-------------
 1373  36 32 24  9     10   18   16    9   15   10   11    4    4    2

1975                           -------|-------------
 1190  38 29 24  8     10   19   17    8   14   11   10    4    5    2

1976                           -------|-------------
  956  34 33 24  9      6   19   17   10   14   11   11    4    5    2

------------------------------------------------------------------------
                ETHI BLACK     GRADE  9     SOCIAL STUDIES
------------------------------------------------------------------------
         QUARTILE                                PERCENTILES
FALL   DISTRIBUTION  0   10   20   30   40   50   60   70   80   90   100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|-----
  727  60 29  9  1     20   30   20    8   12    5    4    1    1    0

1972                       ------|-----
  726  58 33  9  0     20   29   22    8   12    5    4    0    0    0

1973                       ------|-----
  828  59 31 10  1     20   29   19    9   12    6    3    0    0    0

1974                       ----|-------
  832  63 29  8  1     24   30   17    8   12    4    3    0    0    0

1975                       ------|-----
  976  60 31  8  1     18   30   22    9   12    5    3    0    0    0

1976                         ----|----------
  581  54 35 10  1     13   28   24    9   14    6    3    1    1    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25     10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0   10   20   30   40   50   60   70   80   90   100
------------------------------------------------------------------------
```

```
                    SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-----------------------------------------------------------------------
                  ETH: MEXAM      GRADE  9      SOCIAL STUDIES
-----------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                        ------|-----------
  111  42 38 16  4     8   24   20    7   21   11    5    1    3    0

1972                        ----|-------------
  105  54 26 14  6    14   29   19    5   13   10    2    5    3    0

1973                        ------|--------
  130  49 31 16  4    12   28   14   12   15   11    4    3    2    0

1974                        ----|----------
  141  52 33 13  2    12   28   22   11   11   10    2    1    1    1

1975                      ------|----------
  152  53 33 12  2    18   28   18   11   12    5    6    2    0    1

1976                          ----|--------
  146  43 40 14  2    12   22   27    7   16    9    5    0    2    0

-----------------------------------------------------------------------
                  ETH: TOTAL      GRADE  9      SOCIAL STUDIES
-----------------------------------------------------------------------
        QUARTILE                            PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                          ----|-------------
 2436  42 31 19  8    11   22   18    8   15    9    9    3    4    2

1972                        ------|-------------
 2427  42 32 20  6    12   21   18    8   14   10    8    4    3    1

1973                        ------|-----------
 2330  44 32 19  5    13   22   18    9   14   10    8    3    3    1

1974                        ------|-----------
 2368  47 31 17  5    15   23   17    9   14    8    8    3    3    1

1975                        ------|-----------
 2346  49 30 16  5    14   25   19    9   13    8    7    2    2    1

1976                          ----|-----------
 1696  42 34 19  5     9   23   21    9   14    9    8    3    3    1

LARGE CITY NORMS                 ------------|-------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
-----------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
              INTERQUARTILE RANGE AND DECILE DISTRIBUTION

--------------------------------------------------------------------------
                ETH: ANGLO     GRADE 12     SOCIAL STUDIES
--------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                            --------|-------------
  959  32 31 26 12      14   13    8   15   11   11    9   10    4    4

1972                            --------|----------
  919  31 35 26  8      13   14   11   15   14   11    9    8    3    3

1973                          ------|-----------------
  645  40 28 22  9      19   13   19    9   10    6   11    6    3    5

1974                            ----------|-----------
  775  30 33 26 11      12   14   10   14   13   11    8    9    3    4

1975                              ------|-------------
  732  31 32 25 12      12   13   11   16   11   10   10   11    3    4

1976                            -------|----------
  622  34 36 23  7      11   16   11   18   14   13    6    7    2    3

--------------------------------------------------------------------------
                ETH: BLACK     GRADE 12     SOCIAL STUDIES
--------------------------------------------------------------------------
         QUARTILE                         PERCENTILES
FALL   DISTRIBUTION   0   10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4    +....+....+....+....+....+....+....+....+....+....+

1971                    --|--------
  299  76 22  2  0      51   18   11   10    7    1    1    1    0    0

1972                    ---|-------
  395  76 19  5  0      46   26   10    8    5    3    2    0    0    0

1973                    --|-----
  308  86 11  4  0      56   22   10    5    3    1    1    1    0    0

1974                    ---|---------
  409  75 19  5  1      44   25   10   10    4    3    2    1    0    0

1975                     ----|-------
  331  73 23  4  0      40   27   13   12    4    2    1    1    0    0

1976                     ----|-------
  376  73 19  7  1      38   29   13    8    6    4    2    1    1    0

LARGE CITY NORMS                   ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0   10   20   30   40   50   60   70   80   90  100
--------------------------------------------------------------------------
```

```
                 SOUTHEAST  SUBDISTRICT
        INTERQUARTILE RANGE AND DECILE DISTRIBUTION

------------------------------------------------------------------------
                ETHI MEXAM     GRADE 12     SOCIAL STUDIES
------------------------------------------------------------------------
           QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                       ------|---------------
   35  40 29 26  6    23    9   23    6    9    9    9   11    3    0

1972                    -----------|-------
   51  49 31 20  0    25   18    6   20   12   14    2    4    0    0

1973                   -------|----
   39  64 28  8  0    28   15   33    8    8    5    3    0    0    0

1974                    --------|-------
   59  54 34  8  3    25   24   15   14   10    7    0    3    0    2

1975                    ------|-----------
   40  58 23 15  5    35   18    8   10   10    8    8    0    3    3

1976                     -----|-------
   53  60 30  8  2    25   26   15   17    8    0    4    4    2    0

------------------------------------------------------------------------
                ETHI TOTAL     GRADE 12     SOCIAL STUDIES
------------------------------------------------------------------------
           QUARTILE                        PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                     ----------|-------------
 1391  43 28 20  9    23   15    9   13   10    8    7    8    3    3

1972                     --------|------------
 1387  45 30 19  5    23   17   11   14   11    9    7    5    2    2

1973                   -------|------------
 1003  55 23 16  6    31   16   17    7    8    4    8    4    2    3

1974                     --------|-------------
 1254  46 29 18  7    23   18   10   13   10    8    6    6    2    3

1975                     --------|-------------
 1120  45 29 18  8    22   17   12   15    9    7    7    7    2    3

1976                     --------|---------
 1068  49 30 16  5    21   21   12   14   10    9    4    4    1    2

LARGE CITY NORMS                -------------|------------
       25 25 25 25    10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                         SOUTHEAST  SUBDISTRICT
                INTERQUARTILE RANGE AND DECILE DISTRIBUTION

-------------------------------------------------------------------------
                  ETHI ANGLO     GRADE  9          SCIENCE
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                            ----------|-----------
 1552    27 37 21 15    10   10   13   14   16    8    9    9    7    2

1972                         ---|-----------
 1562    52 36 10  1    23   19   18   13   15    5    4    3    0    0

1973                       -----|--------
 1347    53 37  9  1    27   18   17   14   14    4    4    2    0    0

1974                         --------|------------
 1384    37 37 17 10    16   13   14   15   16    7    8    6    5    1

1975                         --------|----------
 1193    39 37 14 10    18   13   16   14   15    6    6    5    5    1

1976                         -----------|---------
  963    33 41 16 10    12   14   15   16   17    7    7    5    5    1

-------------------------------------------------------------------------
                  ETHI BLACK     GRADE  9          SCIENCE
-------------------------------------------------------------------------
          QUARTILE                          PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                      ----|--------
  727    64 33  3  0    33   21   22   13    8    2    1    1    0    0

1972                    -----|------
  726    73 25  2  0    43   21   17   12    6    1    0    0    0    0

1973                    -----|----
  830    75 23  2  0    46   21   16   10    6    1    1    0    0    0

1974                     -----|-----
  839    68 28  4  0    35   23   18   12    8    2    1    0    0    0

1975                      ----|--------
  979    64 32  3  1    33   20   21   13    9    2    1    0    0    0

1976                      -----|-------
  583    60 36  3  1    26   21   24   15   10    2    1    1    0    0

LARGE CITY NORMS                  ------------|--------------
         25 25 25 25    10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
-------------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
-----------------------------------------------------------------------
                    ETHI MEXAM     GRADE  9       SCIENCE
-----------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                       ------|--------
  111  44 41 13  2   21   13   23   17   12    9    3    1    1    1

1972                     ---|-----
  105  70 27  2  2   31   29   18    9    9    1    1    2    0    0

1973                    ----|-----
  131  66 31  2  1   33   18   30   12    5    2    1    1    0    0

1974                     ---|----------
  141  57 33  7  2   30   21   13   16   11    4    3    0    1    1

1975                     -----|------
  152  55 36  9  1   28   14   21   16   11    3    5    0    1    0

1976                       ---|-----------
  146  51 35 12  2   18   21   16   15   16    6    5    1    1    0

-----------------------------------------------------------------------
                    ETHI TOTAL     GRADE  9       SCIENCE
-----------------------------------------------------------------------
      QUARTILE                           PERCENTILES
FALL  DISTRIBUTION  0    10   20   30   40   50   60   70   80   90   100
 N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                        -------|------------
 2436  39 36 15 10   17   14   16   14   14    6    6    6    5    1

1972                    -----|--------
 2427  59 33  7  1   30   20   18   12   12    4    3    2    0    0

1973                   ----|--------
 2334  61 32  6  1   34   19   17   13   10    3    3    1    0    0

1974                       ------|--------
 2386  49 34 11  6   24   17   15   14   13    5    5    3    3    1

1975                    -----|----------
 2352  51 35  9  5   25   16   19   14   12    4    4    3    3    1

1976                      ------|----------
 1705  44 39 11  6   18   17   18   15   15    5    5    3    3    1

LARGE CITY NORMS                ------------|-------------
       25 25 25 25   10   10   10   10   10   10   10   10   10   10

                    +....+....+....+....+....+....+....+....+....+....+
                    0    10   20   30   40   50   60   70   80   90   100
-----------------------------------------------------------------------
```

SOUTHEAST SUBDISTRICT
INTERQUARTILE RANGE AND DECILE DISTRIBUTION

```
------------------------------------------------------------------------
                ETH: ANGLO     GRADE 12        SCIENCE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                            --------------|-----------
  959  25 26 33 16      12   11   10    6   12   10   17   11    6    5

1972                     -----|-------
  919  59 32 10  0      31   21   20   10    9    7    2    0    0    0

1973                    -----|--------
  645  70 26  4  0      34   25   14   13    8    4    0    0    0    0

1974                            -----------|------------
  776  29 27 29 15      13   11   12    9   11   10   15    8    7    5

1975                            -----------|------------
  734  28 27 33 12      13   11   14    6   11    8   19    8    6    3

1976                          -----------|-----------
  624  32 29 30  9      15   13   14    7   13   11   17    5    3    3

------------------------------------------------------------------------
                ETH: BLACK     GRADE 12        SCIENCE
------------------------------------------------------------------------
         QUARTILE                        PERCENTILES
FALL   DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N     1  2  3  4   +....+....+....+....+....+....+....+....+....+....+

1971                   ----|-------
  299  74 21  5  0      48   21   14    6    6    3    2    0    0    0

1972                 -|----
  395  91  9  0  0      73   16    7    2    2    0    0    0    0    0

1973                  |--
  307  97  3  0  0      82   13    3    1    1    0    0    0    0    0

1974                   ----|-----
  409  78 17  5  0      44   28   15    4    4    2    2    1    0    0

1975                   ----|-----
  331  77 17  5  0      45   25   13    6    6    3    2    0    0    0

1976                    ---|-------
  376  73 21  5  1      42   24   18    6    4    3    2    0    0    0

LARGE CITY NORMS                  ------------|-------------
       25 25 25 25      10   10   10   10   10   10   10   10   10   10

                     +....+....+....+....+....+....+....+....+....+....+
                     0    10   20   30   40   50   60   70   80   90  100
------------------------------------------------------------------------
```

```
                          SOUTHEAST  SUBDISTRICT
                 INTERQUARTILE RANGE AND DECILE DISTRIBUTION

----------------------------------------------------------------------------
                    ETH: MEXAM      GRADE 12        SCIENCE
----------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                        -------|-------------
    35   49 26 17  9    23   23    6    9   14    9    6    6    6    0

1972                    --|-----
    51   82 16  2  0    53   24   14    4    4    0    2    0    0    0

1973                   --|-----
    40   93  5  3  0    60   28    8    3    0    3    0    0    0    0

1974                     ------|-------
    59   59 29  7  5    34   20   15   12    7    3    3    2    2    2

1975                    ----|--------------
    40   58 28 13  3    43   13   15    3   13    3    5    5    0    3

1976                      ---|---------
    55   65 24  7  4    31   31   11    9    7    4    4    4    0    0

----------------------------------------------------------------------------
                    ETH: TOTAL      GRADE 12        SCIENCE
----------------------------------------------------------------------------
          QUARTILE                              PERCENTILES
FALL    DISTRIBUTION  0    10   20   30   40   50   60   70   80   90  100
  N       1  2  3  4  +....+....+....+....+....+....+....+....+....+....+

1971                        ------------|-------------
  1391   37 23 26 12    21   13   11    6   11    9   13    8    4    4

1972                    ----|-------
  1387   69 24  6  0    44   20   16    8    7    5    2    0    0    0

1973                   ---|-------
  1003   79 18  3  0    50   22   10    9    6    3    0    0    0    0

1974                        -------|---------------
  1255   46 24 20 10    24   17   13    7    9    7   10    5    5    3

1975                        ---------|----------------
  1122   44 24 24  8    24   15   14    6    9    6   14    6    4    2

1976                      ---------|------------
  1072   49 26 20  6    25   18   15    7    9    8   11    3    2    2

LARGE CITY NORMS                  -------------|------------
         25 25 25 25    10   10   10   10   10   10   10   10   10   10

                      +....+....+....+....+....+....+....+....+....+....+
                      0    10   20   30   40   50   60   70   80   90  100
----------------------------------------------------------------------------
```

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 2

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2372	2222	1987	2003	1946	1917
AVERAGE DAILY ATTENDANCE	2055	1888	1700	1714	1573	1536
INDEX OF AVERAGE DAILY ATTENDANCE	86.6	85.0	85.6	85.6	80.8	80.1
AVERAGE DAILY TRANSACTIONS	5.1	5.5	5.0	5.4	5.3	4.0
INDEX OF AVERAGE DAILY TRANSACTIONS	0.22	0.25	0.25	0.27	0.27	0.21
INDEX OF SCHOOL ATTRACTION	-.01	-.02	-.01	-.01	-.02	-.05
ENROLLMENT BY ETHNICITY						
% OTHER	66.6	63.3	57.8	59.0	55.4	57.0
% BLACK	26.9	29.9	34.1	32.6	35.1	34.1
% MEXICAN-AMERICAN	6.4	6.5	7.7	8.3	9.1	8.5
% AMERICAN INDIAN	0.0	0.3	0.3	0.1	0.2	0.2
% ORIENTAL	0.0	0.1	0.2	0.1	0.2	0.2

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 4

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2457	2269	2238	2023	1890	1693
AVERAGE DAILY ATTENDANCE	2129	1928	1919	1730	1554	1505
INDEX OF AVERAGE DAILY ATTENDANCE	86.6	85.0	85.8	85.5	82.3	88.9
AVERAGE DAILY TRANSACTIONS	5.0	5.6	5.5	5.3	5.0	3.7
INDEX OF AVERAGE DAILY TRANSACTIONS	0.20	0.25	0.25	0.26	0.26	0.22
INDEX OF SCHOOL ATTRACTION	-.01	-.02	-.01	-.01	-.02	-.06
ENROLLMENT BY ETHNICITY						
% OTHER	66.0	66.7	59.9	57.4	55.2	54.1
% BLACK	26.9	26.6	32.6	34.8	36.7	37.0
% MEXICAN-AMERICAN	6.9	6.4	7.4	7.6	7.8	8.7
% AMERICAN INDIAN	0.0	0.1	0.1	0.1	0.2	0.1
% ORIENTAL	0.1	0.2	0.1	0.1	0.2	0.2

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 6

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP..............	1900	2432	2387	2195	2188	1694
AVERAGE DAILY ATTENDANCE..............	1644	2076	2034	1905	1820	1521
INDEX OF AVERAGE DAILY ATTENDANCE.....	86.5	85.4	85.2	86.8	83.2	89.8
AVERAGE DAILY TRANSACTIONS............	4.2	5.5	5.3	5.2	5.3	3.6
INDEX OF AVERAGE DAILY TRANSACTIONS...	0.22	0.23	0.22	0.24	0.24	0.21
INDEX OF SCHOOL ATTRACTION............	-.01	-.02	-.01	-.02	-.02	-.06
ENROLLMENT BY ETHNICITY						
% OTHER...............................	89.2	62.2	57.9	56.9	55.0	56.3
% BLACK...............................	3.8	31.7	34.2	35.5	37.4	35.1
% MEXICAN-AMERICAN....................	6.8	5.7	7.5	7.2	7.3	8.3
% AMERICAN INDIAN.....................	0.1	0.2	0.2	0.2	0.1	0.2
% ORIENTAL............................	0.1	0.1	0.2	0.2	0.1	0.1

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

ELEMENTARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS....................	****	611	460	787	599	541
% FEMALE.............................	****	90.4	90.0	90.3	89.9	91.6
% MALE...............................	****	9.7	10.0	9.7	10.1	8.4
AGE						
% LESS THAN 26 YEARS OLD..............	****	20.0	22.0	19.5	13.6	10.5
% 26 - 35 YEARS OLD..................	****	25.8	31.3	34.2	32.7	37.7
% 36 - 45 YEARS OLD..................	****	23.7	19.3	18.2	22.5	21.6
% 46 - 55 YEARS OLD..................	****	15.2	13.5	14.1	16.9	16.6
% 56 - 65 YEARS OLD..................	****	13.4	12.1	11.5	13.0	12.6
% OVER 65 YEARS OLD..................	****	1.9	1.9	2.8	0.7	1.1
ETHNICITY						
% WHITE..............................	****	69.0	72.0	72.3	65.7	65.3
% BLACK..............................	****	30.0	27.4	26.8	32.4	32.3
% MEXICAN-AMERICAN...................	****	0.9	0.6	1.0	1.8	2.4
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE..........	****	40.7	45.9	43.5	33.1	35.2
% 6 - 10 YEARS OF EXPERIENCE.........	****	17.6	17.3	18.8	22.4	22.7
% 11 - 15 YEARS OF EXPERIENCE........	****	11.8	10.7	10.9	15.1	15.8
% 16 - 20 YEARS OF EXPERIENCE........	****	9.2	6.9	8.0	8.5	7.6
% 21 - 40 YEARS OF EXPERIENCE........	****	19.7	18.0	17.5	20.3	18.4
EDUCATIONAL LEVEL						
% WITH NO DEGREE.....................	****	0.0	0.0	0.1	0.0	0.0
% WITH BACHELORS DEGREE ONLY.........	****	68.5	70.3	67.8	61.6	59.2
% WITH MASTERS DEGREE................	****	31.5	29.7	32.0	38.0	40.6
% WITH DOCTORATE DEGREE..............	****	0.0	0.0	0.1	0.3	0.2

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 8

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	2488	2695	2695	2475	2522	2062
AVERAGE DAILY ATTENDANCE	2057	2219	2214	2060	2144	1869
INDEX OF AVERAGE DAILY ATTENDANCE	82.7	82.3	82.2	83.2	85.0	90.7
AVERAGE DAILY TRANSACTIONS	4.0	4.8	5.1	5.0	5.1	3.8
INDEX OF AVERAGE DAILY TRANSACTIONS	0.16	0.18	0.19	0.20	0.20	0.18
INDEX OF SCHOOL ATTRACTION	-.03	-.04	-.03	-.04	-.03	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	76.5	62.6	61.6	57.1	55.7	57.9
% BLACK	18.4	30.6	32.0	36.2	36.3	33.7
% MEXICAN-AMERICAN	4.8	6.5	5.9	6.5	7.6	7.7
% AMERICAN INDIAN	0.1	0.3	0.4	0.2	0.0	0.2
% ORIENTAL	0.1	0.1	0.1	0.1	0.5	0.6
NUMBER OF DROPOUTS PER 100	****	0.4	2.0	1.5	0.6	****
% OTHER	****	0.4	1.3	1.0	0.5	****
% BLACK	****	0.0	0.6	0.4	0.0	****
% MEXICAN-AMERICAN	****	0.0	0.1	0.1	0.1	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 9

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	3067	2842	2729	2845	2709	2004
AVERAGE DAILY ATTENDANCE	2557	2312	2232	2331	2290	1824
INDEX OF AVERAGE DAILY ATTENDANCE	83.4	81.3	81.8	81.9	84.5	91.0
AVERAGE DAILY TRANSACTIONS	5.9	5.9	6.2	6.7	5.8	3.3
INDEX OF AVERAGE DAILY TRANSACTIONS	0.19	0.21	0.23	0.24	0.21	0.17
INDEX OF SCHOOL ATTRACTION	-.07	-.06	-.07	-.07	-.04	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	60.5	63.0	54.6	54.7	49.0	56.1
% BLACK	35.3	32.5	39.8	39.9	45.1	35.3
% MEXICAN-AMERICAN	3.9	4.2	5.3	5.2	5.6	8.4
% AMERICAN INDIAN	0.2	0.3	0.2	0.2	0.1	0.1
% ORIENTAL	0.0	0.0	0.2	0.0	0.2	0.1
NUMBER OF DROPOUTS PER 100	****	1.5	4.8	3.4	2.3	****
% OTHER	****	1.0	2.0	1.8	1.1	****
% BLACK	****	0.4	2.7	1.4	1.0	****
% MEXICAN-AMERICAN	****	0.1	0.2	0.2	0.2	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

STUDENT CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

GRADE 12

STUDENT VARIABLES	1971	1972	1973	1974	1975	1976
AVERAGE DAILY MEMBERSHIP	1802	1496	1389	1354	1226	1216
AVERAGE DAILY ATTENDANCE	1501	1205	1102	1102	1000	1106
INDEX OF AVERAGE DAILY ATTENDANCE	83.3	80.6	79.3	81.4	81.6	91.0
AVERAGE DAILY TRANSACTIONS	5.2	4.3	4.0	4.1	2.4	2.1
INDEX OF AVERAGE DAILY TRANSACTIONS	0.29	0.29	0.29	0.30	0.19	0.17
INDEX OF SCHOOL ATTRACTION	-.19	-.18	-.18	-.18	-.07	-.07
ENROLLMENT BY ETHNICITY						
% OTHER	64.9	65.5	66.7	63.6	64.0	58.0
% BLACK	32.8	30.9	28.5	32.0	32.3	36.6
% MEXICAN-AMERICAN	2.0	3.3	4.6	4.3	3.5	5.0
% AMERICAN INDIAN	0.3	0.3	0.1	0.1	0.3	0.2
% ORIENTAL	0.0	0.1	0.0	0.0	0.0	0.2
NUMBER OF DROPOUTS PER 100	****	5.0	11.6	11.9	5.6	****
% OTHER	****	4.2	7.7	8.6	3.9	****
% BLACK	****	0.7	3.4	2.4	1.1	****
% MEXICAN-AMERICAN	****	0.2	0.6	0.8	0.6	****
% AMERICAN INDIAN	****	0.0	0.0	0.0	0.0	****
% ORIENTAL	****	0.0	0.0	0.0	0.0	****

**** DATA NOT AVAILABLE

RELATED FACTORS

TEACHER CHARACTERISTICS

SOUTHEAST SUBDISTRICT SUMMARY

SECONDARY GRADE LEVELS

TEACHER VARIABLES	1971	1972	1973	1974	1975	1976
NUMBER OF TEACHERS	****	633	471	739	590	504
% FEMALE	****	58.4	60.3	56.8	58.9	56.8
% MALE	****	41.8	39.7	43.2	41.1	43.2
AGE						
% LESS THAN 26 YEARS OLD	****	22.3	17.3	14.3	12.5	9.0
% 26 - 35 YEARS OLD	****	34.6	39.8	43.1	40.2	43.4
% 36 - 45 YEARS OLD	****	19.5	17.8	19.3	23.4	22.9
% 46 - 55 YEARS OLD	****	13.3	14.2	13.3	15.2	16.1
% 56 - 65 YEARS OLD	****	8.7	9.4	7.5	7.3	8.0
% OVER 65 YEARS OLD	****	1.0	1.4	2.4	1.0	0.6
ETHNICITY						
% WHITE	****	70.7	72.3	71.0	67.2	68.4
% BLACK	****	28.3	26.1	27.2	30.9	28.9
% MEXICAN-AMERICAN	****	0.9	1.7	1.7	1.6	2.7
TEACHING EXPERIENCE						
% 0 - 5 YEARS OF EXPERIENCE	****	46.7	45.0	42.4	36.8	41.1
% 6 - 10 YEARS OF EXPERIENCE	****	20.8	21.8	23.1	25.3	21.2
% 11 - 15 YEARS OF EXPERIENCE	****	11.1	10.2	12.8	15.6	16.9
% 16 - 20 YEARS OF EXPERIENCE	****	7.4	5.8	7.1	7.9	8.4
% 21 - 40 YEARS OF EXPERIENCE	****	13.0	15.5	13.0	13.8	12.5
EDUCATIONAL LEVEL						
% WITH NO DEGREE	****	0.6	1.3	1.0	1.2	1.0
% WITH BACHELORS DEGREE ONLY	****	64.7	64.3	60.8	54.9	55.4
% WITH MASTERS DEGREE	****	34.4	34.4	37.7	43.3	43.3
% WITH DOCTORATE DEGREE	****	0.2	0.0	0.5	0.7	0.4

**** DATA NOT AVAILABLE

Additional Information:

76-812 Quasi-longitudinal Measurement Profiles, 1971-75, Language, 1976, George H. Olson, James A. Meier, 437 pages.

76-813 Quasi-longitudinal Measurement Profiles, 1971-75, Mathematics, 1976, George H. Olson, James A. Meier, 437 pages.

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76-810 Measurement Profiles, 1975-76, 1976, George H. Olson, James A. Meier, 62 pages.

75-628 Measurement Profiles 1974-75, 1975, William J. Webster, Babs Fulbright, 130 pages.

74-302 Dallas Independent School District Management Profiles Spring Testing Supplement, Grade 12, 1974, Richard E. Mallett, 115 pages.

74-246 Dallas Independent School District Management Profiles I-VI, 1973-74, 1974, Richard E. Mallett, 6 Volumes, 3477 pages.

73-127 Dallas Independent School District Measurement Profiles, 1973, Robert L. Mendro, 5 Volumes, 3659 pages.

72-44 Dallas Independent School District Measurement Profiles, 1972, Clinton C. Schuhmacher, 10 Volumes, 277 pages.

Abstract

Cohort-longitudinal Measurement Profiles 1973-76

Evaluators: James A. Meier and Charlotte J. Eberhart

Purpose: Longitudinal trends in achievement scores can be examined by tracing the annual performance of students on standardized achievement tests over several years. The cohort-longitudinal study does this by identifying all students who participated in the district-wide testing program in September, 1973, and also three years later in September, 1976. Its purpose is to trace achievement score trends set by only those students who have remained within DISD for three years and the start of a fourth year. Thus, it can present evidence of achievement levels and program effectiveness due specifically to student experiences within DISD over these years.

Sample: All students satisfying the cohort condition were used in this study. Data for the same student were matched over successive years by means of a six-digit student identification number. When the required identification number was missing from the student record in 1973 or in 1976, no match was possible, and the student was necessarily omitted from the sample. Also, a student was omitted if his test scores were incomplete or missing from his 1973 or 1976 record. In some cases entire grades had to be omitted; whereas all grades were tested in 1973, only grades 2, 4, 6, 8, 9, and 12 were tested in 1976. Thus, only three cohorts were available for inclusion: those spanning grades 3-6, 5-8, and 9-12 over the years 1973-76.

Design: In 1973 the instrument used to measure achievement in grades 3 and 5 was the Comprehensive Tests of Basic Skills (CTBS). In 1976 the instrument used in grades 6 and 8 was the Iowa Tests of Basic Skills (ITBS). In both years the instrument used in grades 9 and 12 was the Iowa Tests of Educational Development (ITED). A comparability study was completed in 1975 which enabled raw scores from the CTBS to be transformed onto the ITBS scoring scale so that results from these two instruments could be compared. Thus, scores can be reported in grade-equivalence (GE) units over grades 2-8 in all years of concern in this study (1973-76).

The GE scale must be understood correctly so that GE scores will not be misinterpreted. A GE score indicates the grade level by grade and month. For example, a student earning a score of 65 has performed at the same level as does the typical student who is in his 5th month of grade 6. The score indicates where a student lies along a growth continuum; it does not indicate the grade into which the student should be placed nor that the student could succeed in grade 6.

The range of GE scores is not uniform over all three achievement areas. Thus, if a student earns a higher GE score in reading than he does in mathematics, his achievement in reading may or may not be superior to his achievement in mathematics; what can be said is that his reading score was farther above (or less far below) norm than was his mathematics score. In order to make comparisons across achievement areas percentile ranks should be used, as provided by a conversion table from GE scores to percentiles. By definition, a score converted to the p-th percentile rank is higher than p percent of the scores made by students in the national norm group. Thus, if a student scores at a higher percentile rank in reading than he does in mathematics, he will be said to have achieved higher in reading than in mathematics.

According to national norms the average student is expected to achieve one year of growth or an increase of 10 score points per year on the GE scale. A student who is above average initially will generally achieve more than one year of growth, while a student who is below average initially will generally achieve less than one year of growth. According to large-city norms, based on a norming group which was a subset of the national norming group, the average large-city student is expected to achieve slightly less than one year of growth per year. Thus, for purposes of this local report, if the average local student can be assumed to be comparable to the average student in the large-city norming group, then the average growth expected locally from September, 1973, to September, 1976, will range from 27 to 29 scorepoints, depending on grade level and achievement area. This decision is based on the assumption that a student scoring at the 50th percentile on large-city norms will continue to score at that percentile in subsequent years. This assumption is commonly used in the development of growth scales.

In grades 9-12, the level at which the ITED has been given annually, there exists no way of comparing scores on the ITBS GE continuum. In these grades specialization of academic pursuit has begun, rendering GE scores inappropriate in these upper grades. Locally in these grades the same form of the same tests was given in grade 9 in September, 1973, and again in September, 1976. Over three years the average large-city student is expected to increase his raw score by 3 to 15 points (number of items correct), depending on the achievement area. Above-average students are expected to increase more, and below-average students less.

Limitations: The assumptions which limit the present study are listed as follows:

1. The test batteries (CTBS, ITBS, and ITED) provided an adequate measure of student achievement over three years (1973-76).
2. The median score in each cohort, actually a measure of the performance of the median student, is taken to be an acceptable measure of central tendency for the whole cohort.

3. The practice effect resulting from repeating the same form of the same test after three years was not significant.
4. The ITBS grade-equivalence scale provided a continuous interval growth scale for valid longitudinal comparisons across grades and years for grades 3-8.
5. The regression coefficients generated by the test comparability study provided an accurate means of transforming the CTBS raw scores in 1973 to grade-equivalence scores on the new ITBS scale.
6. No bias was introduced by excluding from the study students who failed to take all of the subtests needed for generating total scores in language or mathematics.
7. No bias was introduced by excluding from the study students with missing or incomplete identification data.

Results: The results will be presented by subdistrict.

Northwest Subdistrict

1. Median reading scores of Anglo students remained above norm. In the grade 3-6 cohort local growth equalled the growth expected for above-norm achievement. In the grade 5-8 cohort local growth excelled the expected growth rate. In the grade 9-12 cohort local growth fell short of the growth expected for above-norm achievement but equalled the growth of the norming group while remaining well above norm.
2. Median language scores of Anglo students ended above norm in all three cohorts. In the grade 3-6 and grade 5-8 cohorts local growth exceeded both expected growth and norming-group growth. In the grade 9-12 cohort local growth fell short of both expected growth and norming-group growth while local scores remained absolutely above norm.
3. Median mathematics scores of Anglo students ended above norm in all three cohorts. In the grade 3-6 and grade 5-8 cohorts local growth exceeded both expected growth and norming-group growth. In the grade 9-12 cohort local growth equalled the growth expected for above-norm achievement.

4. Median reading scores of black students remained below norm. In the grade 5-8 cohort local growth exceeded growth expected for below-norm achievement. In the two remaining cohorts local growth fell below expected growth.

5. Median language scores of black students remained below norm. In all three cohorts local growth fell short of the growth expected for below-norm achievement.

6. Median mathematics scores of black students remained below norm. In the grade 5-8 cohort local growth exceeded growth expected for below-norm achievement. In the two remaining cohorts local growth fell below expected growth.

7. Median reading scores of Mexican-American students remained below norm. However, in the grade 3-6 and grade 5-8 cohorts local growth somewhat exceeded growth expected for below-norm achievement.

8. Median language scores of Mexican-American students remained below norm. However, in the grade 3-6 and grade 5-8 cohorts local growth equalled growth expected for below-norm achievement.

9. Median mathematics scores of Mexican-American students remained below norm. However, in the grade 5-8 cohort local growth exceeded growth expected for below-norm achievement.

10. Median reading scores of all students in the Northwest Subdistrict were above norm only in the grade 9-12 cohort, where the percentage of Anglo students was higher than in the lower-grade cohorts. However, local growth equalled or exceeded expected growth only in the two lower-grade cohorts and fell below expected growth in the grade 9-12 cohort.

11. Median language scores of all students in the Northwest Subdistrict were above norm only in the grade 9-12 cohort, where the percentage of Anglo students was higher than in the lower-grade cohorts. However, local growth exceeded expected growth only in the two lower-grade cohorts and fell below expected growth in the grade 9-12 cohort.

12. Median mathematics scores of all students in the Northwest Subdistrict were up to norm only in the grade 9-12 cohort, where the percentage of Anglo students was higher than in the two lower-grade cohorts. Local growth equalled or exceeded expected growth in all three cohorts.

13. By comparing the percentile ranks of median scores across achievement areas, we can conclude that Anglo students scored highest in reading in all three cohorts, second highest in

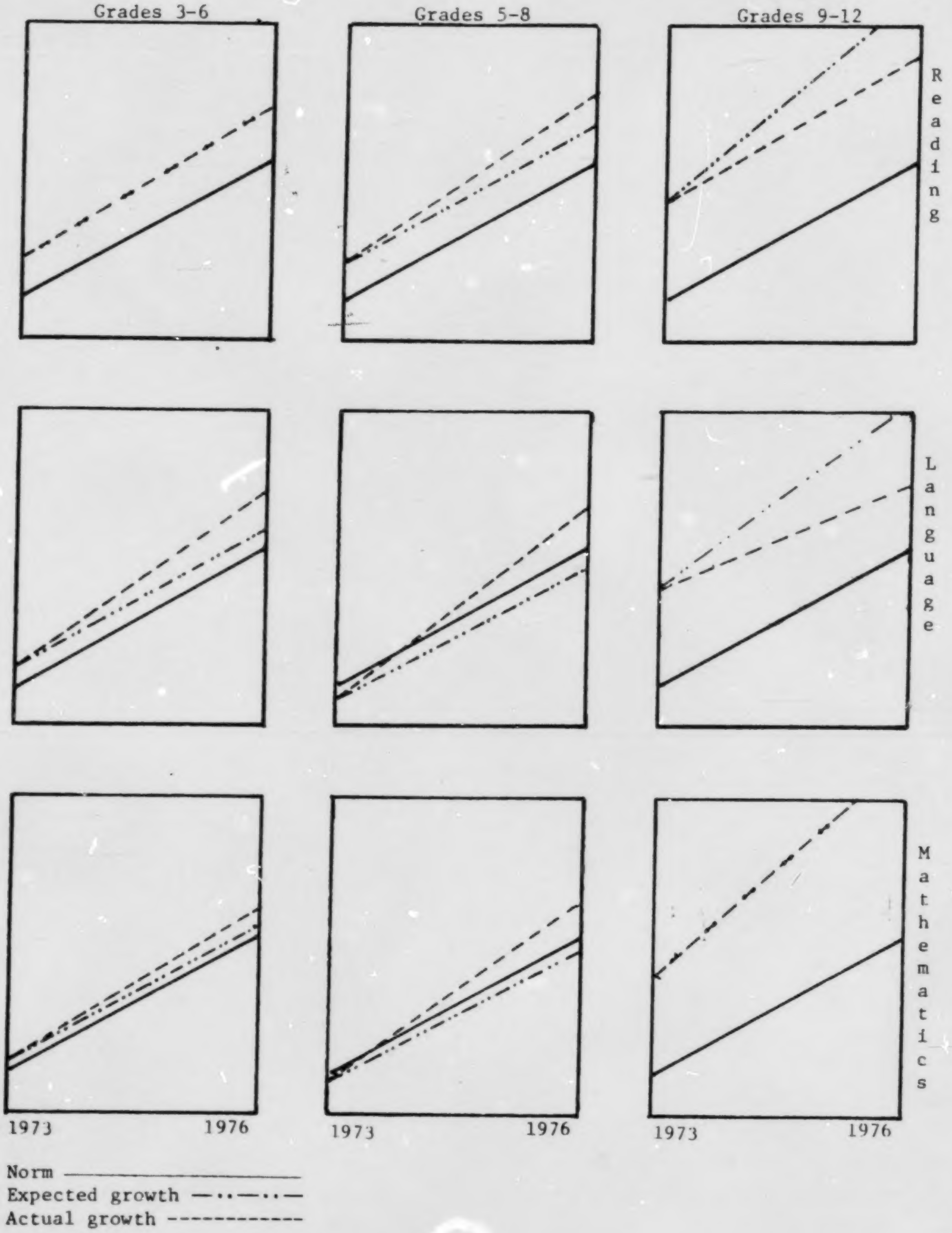
language in the grade 3-6 and grade 5-8 cohorts, and second highest in mathematics in the grade 9-12 cohort. Black and Mexican-American students scored highest in reading and language in the grade 3-6 cohort, highest in reading in the grade 5-8 cohort, and highest in mathematics in the grade 9-12 cohort. All together the students in this subdistrict scored highest in language in the grade 3-6 and grade 5-8 cohorts and highest in reading in the grade 9-12 cohort.

14. Local growth in median scores was evenly prominent in all three subtests in the youngest cohort. It was more prominent in language and mathematics than in reading in the grade 5-8 cohort. It was greatest in mathematics in the oldest cohort.

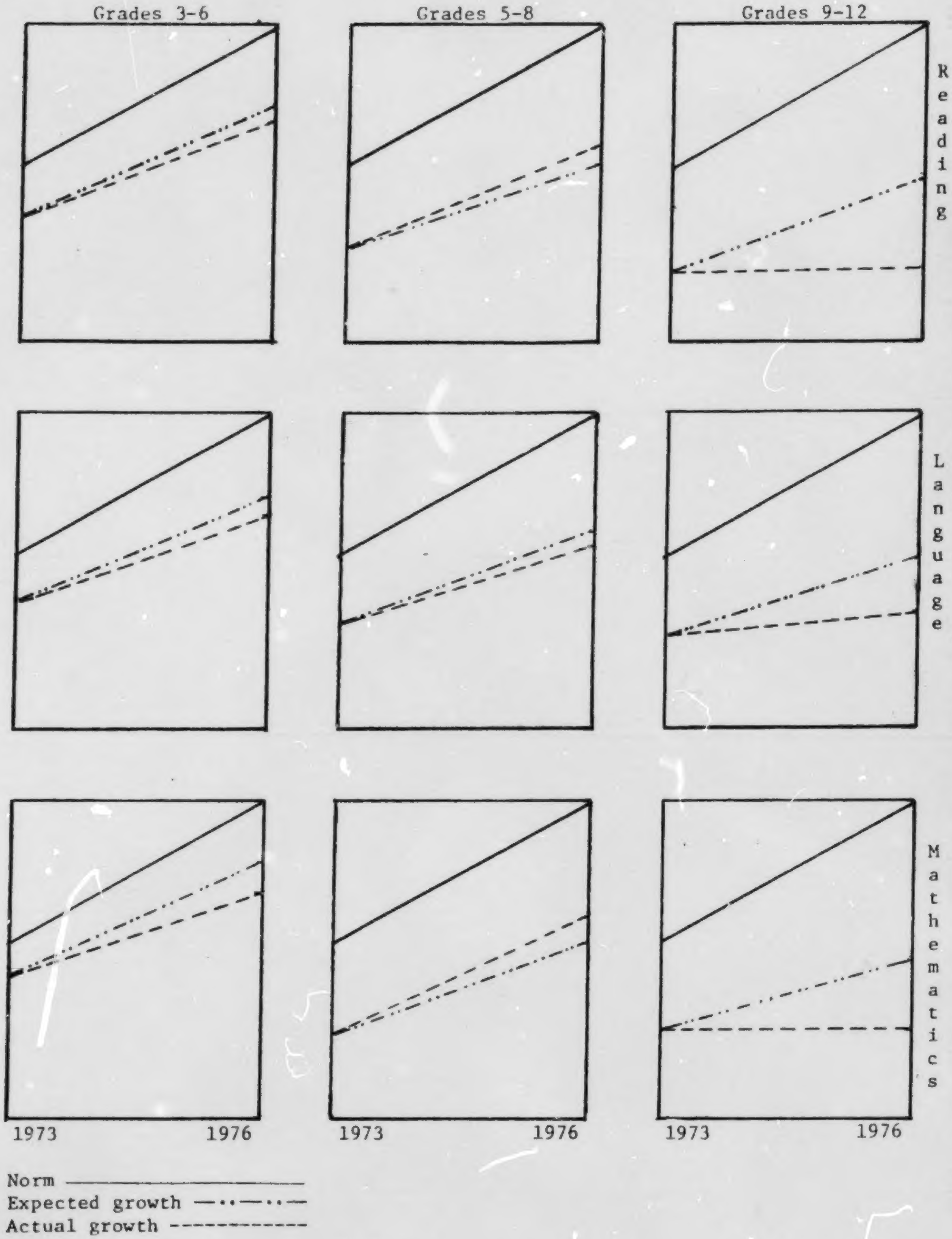
Cohort Sizes in the Northwest Subdistrict

Grade Cohort	Black	MexAm	Anglo	All Races
		Reading		
3-6	659	389	503	1569
5-8	565	373	761	1726
9-12	312	140	953	1423
		Language		
3-6	654	386	502	1559
5-8	561	366	748	1702
9-12	309	134	943	1403
		Mathematics		
3-6	648	384	496	1545
5-8	571	371	759	1727
9-12	308	139	949	1415

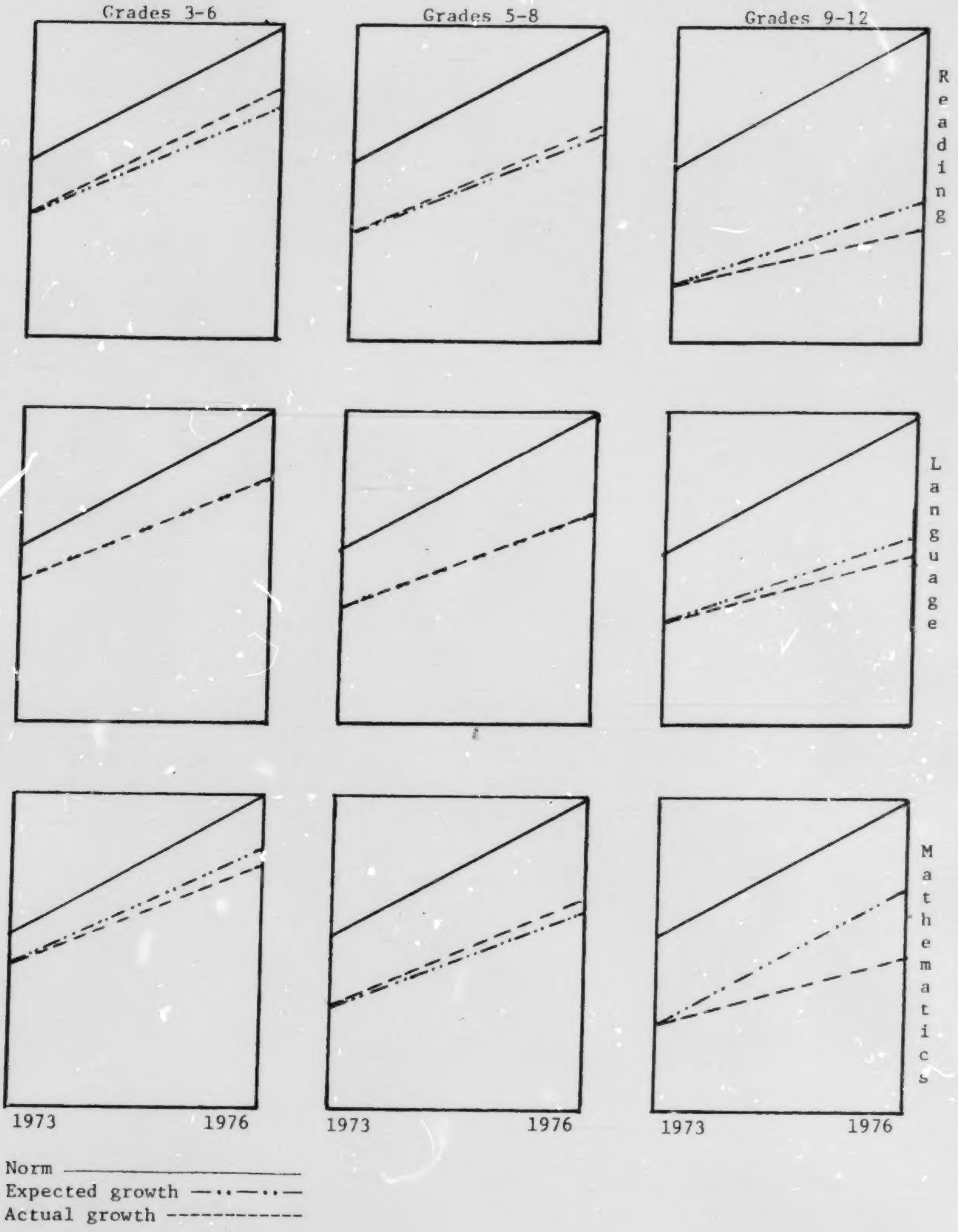
Northwest Subdistrict
Anglo



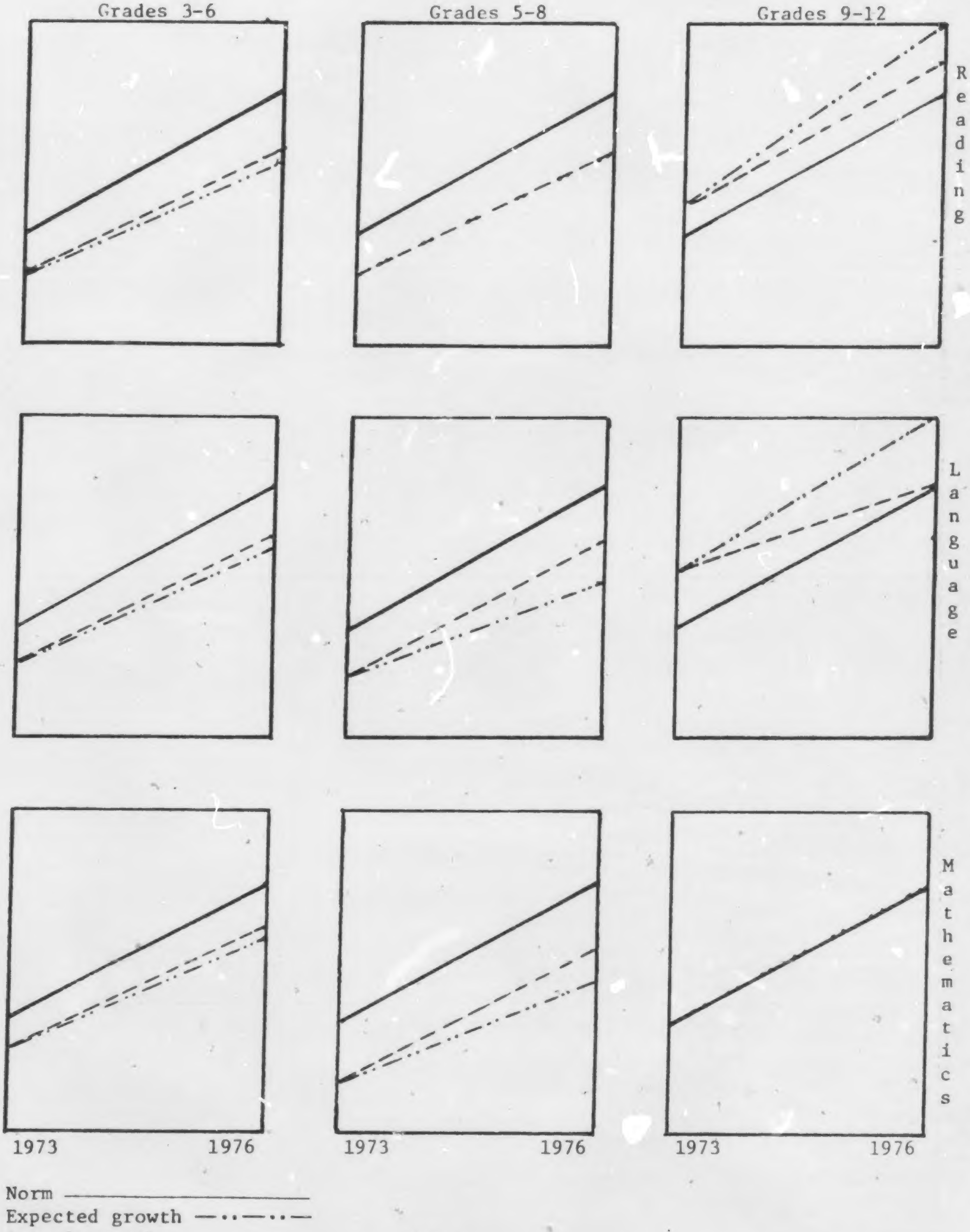
Northwest Subdistrict
Black



Northwest Subdistrict
Mexican-American



Northwest Subdistrict
All Students



Median Scores in the Northwest Subdistrict

	Reading			Language			Mathematics		
Grade Cohort	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976
				Anglo					
3-6	35-65	27-55	65	31-66	28-55	59	29-62	28-57	58
5-8	51-84	45-74	82	40-82	45-74	65	44-80	48-76	70
9-12	44-60	33-48	66	43-52	31-46	61	11-16	9-12	16
				Black					
3-6	17-36	27-55	39	19-36	28-55	39	20-38	28-57	44
5-8	27-49	45-74	46	30-46	45-74	48	29-52	48-76	47
9-12	22-23	33-48	32	22-25	31-46	30	7-7	9-12	10
				Mexican-American					
3-6	17-42	27-55	39	20-42	28-55	42	21-42	28-57	45
5-8	31-54	45-74	53	32-52	45-74	52	33-56	48-76	53
9-12	21-27	33-48	30	23-29	31-46	32	7-8	9-12	10
				All Students					
3-6	19-44	27-55	42	21-44	28-55	42	21-46	28-56	45
5-8	37-62	45-74	62	35-62	45-74	56	35-62	48-76	56
9-12	37-51	33-48	57	36-46	31-46	53	9-12	9-12	12

Northeast Subdistrict

Longitudinal trends in median scores in the Northeast Subdistrict are displayed on four pages of graphs and a table of ordinates from which the graphs were sketched. Each graph contains three curves indicating the growth of median scores. One indicates the growth of the median scores in the large-city norming group. Another indicates the actual growth in the local cohort. The third indicates the growth expected in the local cohort given its actual position in 1973. Attention to these graphs leads to the following inferences.

1. Median reading scores of Anglo students remained above norm in all three cohorts. In the grade 3-6 and grade 5-8 cohorts local growth equalled the growth expected for above-norm achievement. In the grade 9-12 cohort local growth fell short of the growth expected for above-norm achievement but equalled the growth of the norming group.

2. Median language scores of Anglo students ended above norm in all three cohorts. In the grade 3-6 and grade 5-8 cohorts local growth exceeded both expected growth and norming-group growth. In the grade 9-12 cohort local growth fell short of both expected growth and norming-group growth while local scores remained absolutely above norm.

3. Median mathematics scores of Anglo students remained below norm in the grade 3-6 and grade 5-8 cohorts and above norm in the grade 9-12 cohort. Local growth exceeded the growth expected for below-norm achievement in the two youngest cohorts and fell below the growth expected for above-norm achievement in the oldest cohort.

4. Median reading scores of black students remained below norm in all three cohorts. In the grade 5-8 cohort local growth exceeded the growth expected for below-norm achievement. In the two remaining cohorts local growth fell below the growth expected for below-norm achievement.

5. Median language scores of black students remained below norm in all three cohorts. Local growth fell short of the growth expected for below-norm achievement in all three cohorts.

6. Median mathematics scores of black students remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell below the growth expected for below-norm achievement in the two remaining cohorts.

7. Median reading scores of Mexican-American students remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the two youngest cohorts and fell below the growth expected for below-norm achievement in the oldest cohort.

8. Median language scores of Mexican-American students remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the grade 3-6 cohort, exceeded it in the grade 5-8 cohort, and fell short of it in the grade 9-12 cohort.

9. Median mathematics scores of Mexican-American students remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in the two remaining cohorts.

10. Median reading scores of all students in the Northeast Subdistrict remained below norm in the grade 3-6 and grade 5-8 cohorts and remained at norm in the grade 9-12 cohort, where the percentage of Anglo students was higher than in the two youngest cohorts. Local growth equalled the growth expected for below-norm achievement and fell short of it in the oldest cohort.

11. Median language scores of all students in the Northeast Subdistrict remained below norm in the grade 3-6 and grade 5-8 cohorts and fell from above norm to below norm in the grade 9-12 cohort, where the percentage of Anglo students was higher than in the two younger cohorts. Local growth exceeded the growth expected for below-norm achievement in the two youngest cohorts and fell short of both the norm-group growth and the expected growth in the oldest cohort.

12. Median mathematics scores of all students in the Northeast Subdistrict remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the grade 3-6 cohort, exceeded it in the grade 5-8 cohort, and fell short of it in the grade 0-12 cohort, where the percentage of Anglo students was higher than in the two youngest cohorts.

13. By comparing the percentile ranks of median scores in 1976 across achievement subtests, we can conclude that for Anglo students reading ranked highest in all three cohorts, and language lowest in the oldest cohort. For black students reading ranked highest in the two youngest cohorts and mathematics highest in the oldest cohort. For Mexican-American students language ranked highest and mathematics lowest in all three cohorts. For all students taken togehter in this subdistrict

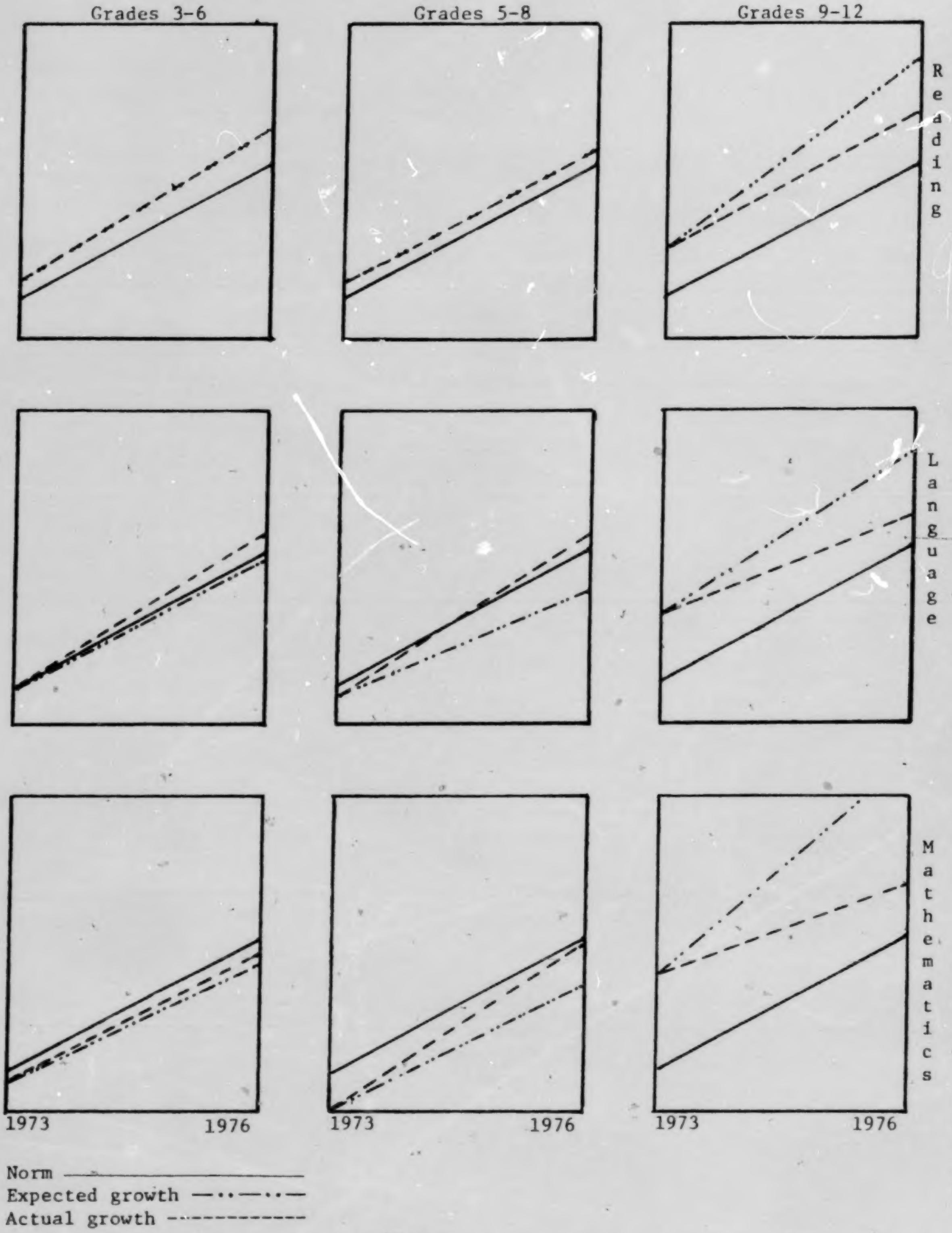
reading ranked highest in the two oldest cohorts and mathematics lowest in the two youngest cohorts.

14. Local growth was greatest in reading in the youngest cohort, greatest in language and least in reading in the grade 5-8 cohort, and greatest in reading in the oldest cohort.

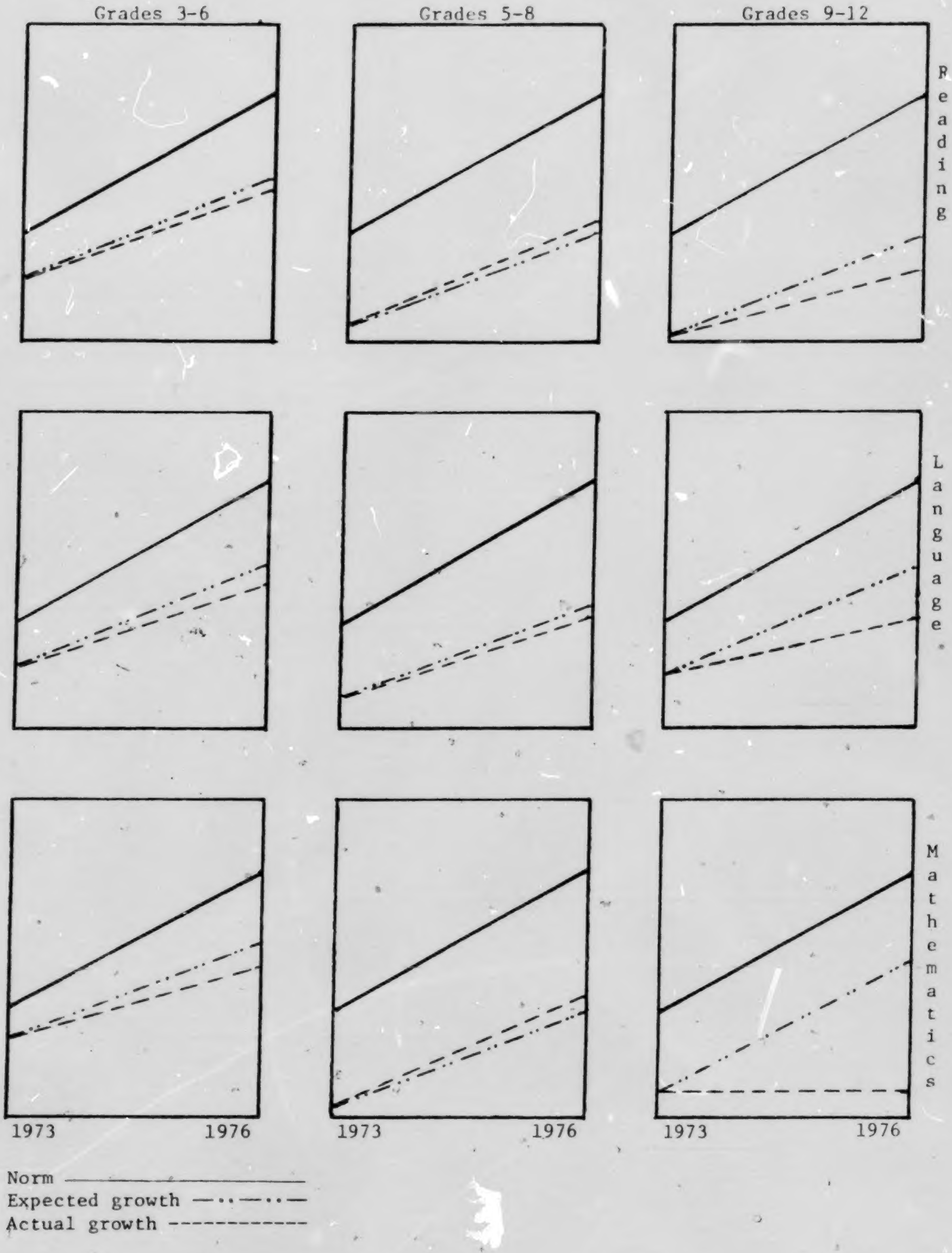
Cohort Sizes in the Northeast Subdistrict

Grade Cohort	Black	MexAm	Anglo	All Races
		Reading		
3-6	525	151	653	1342
5-8	336	140	755	1240
9-12	281	73	954	1324
		Language		
3-6	520	147	632	1313
5-8	326	135	732	1202
9-12	274	74	929	1293
		Mathematics		
3-6	523	152	655	1344
5-8	332	141	747	1229
9-12	285	76	958	1335

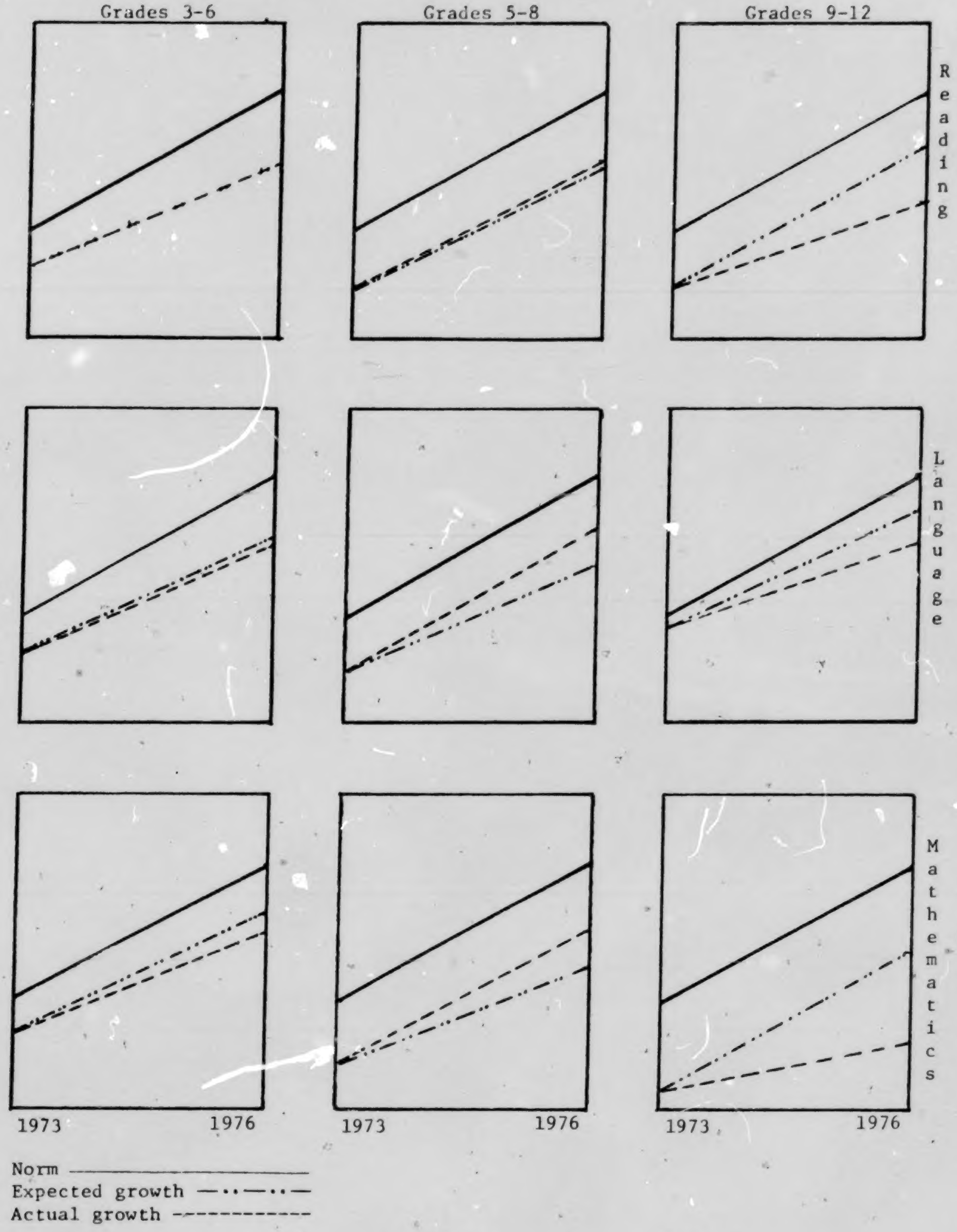
Northeast Subdistrict
Anglo



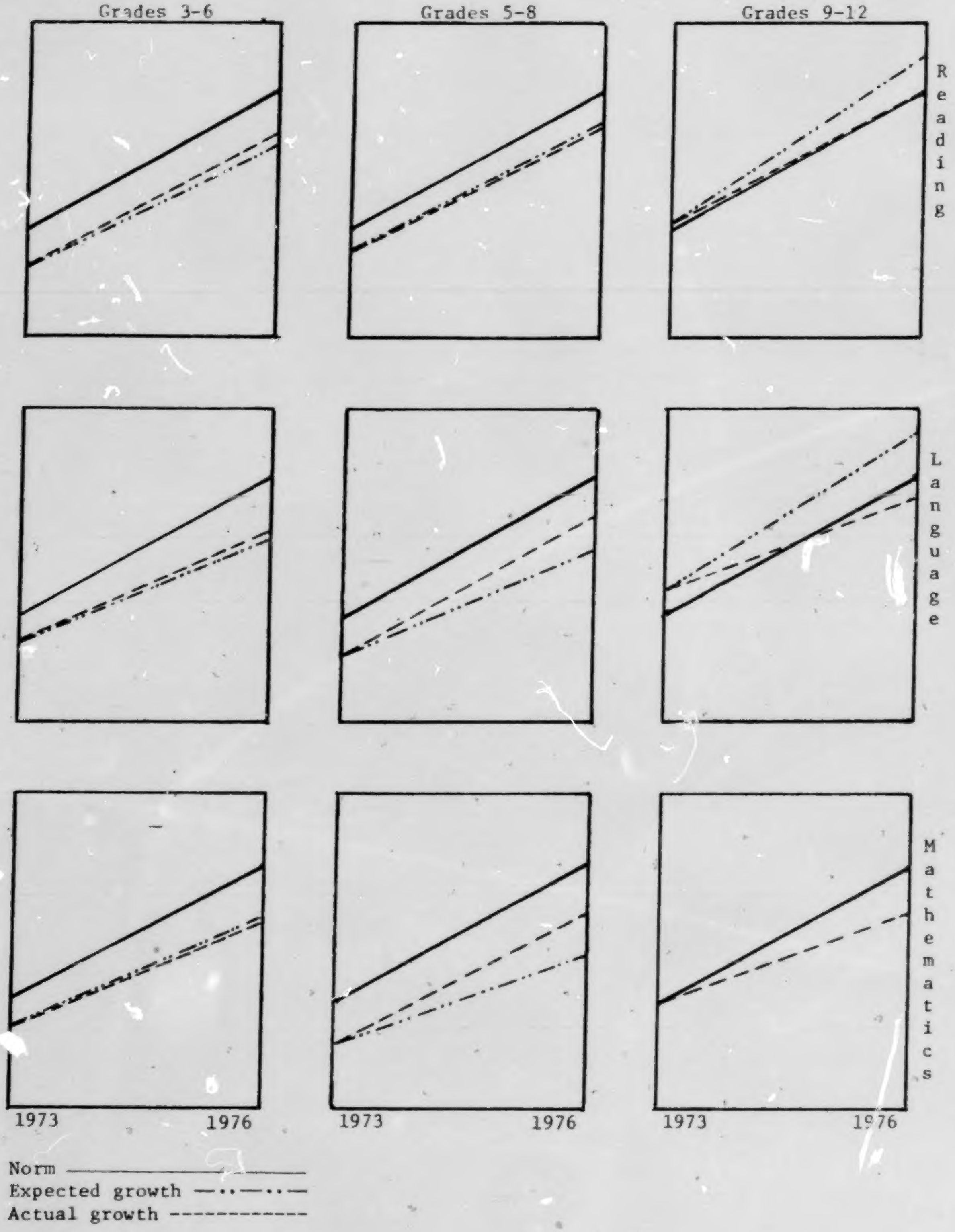
Northeast Subdistrict
Black



Northeast Subdistrict
Mexican-American



Northeast Subdistrict
All Students



Median Scores in the Northeast Subdistrict

Grade Cohort	Reading			Language			Mathematics		
	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976
Anglo									
3-6	30-59	27-55	59	28-57	28-55	54	25-54	28-57	52
5-8	48-77	45-74	77	39-76	45-74	63	40-75	48-76	64
9-12	38-53	33-48	59	38-49	31-46	56	11-13	9-12	16
Black									
3-6	17-37	27-55	39	19-35	28-55	39	19-36	28-57	42
5-8	27-48	45-74	46	30-45	45-74	48	29-51	48-76	47
9-12	23-29	33-48	33	25-31	31-46	36	7-7	9-12	10
Mexican-American									
3-6	18-41	27-55	41	22-42	28-55	43	21-42	28-57	45
5-8	35-60	45-74	59	34-62	45-74	55	34-62	48-76	55
9-12	28-36	33-48	42	29-38	31-46	42	7-8	9-12	10
All Students									
3-6	20-46	27-55	44	22-45	28-55	43	21-44	28-57	45
5-8	41-67	45-74	68	36-65	45-74	58	37-65	48-76	59
9-12	39-48	33-48	52	34-44	31-46	50	9-11	9-12	12

Southwest Subdistrict

Longitudinal trends in median scores in the Southwest Subdistrict are displayed on four pages of graphs and a table of ordinates from which the graphs were sketched. Each graph contains three curves indicating the growth of median scores. One indicates the growth of median scores in the large-city norming group. Another indicates the actual growth in the local cohort. The third indicates the growth expected in the local cohort given its actual position in 1973. Attention to these graphs leads to the following inferences.

1. Median reading scores of Anglo students remained at norm in the grade 3-6 cohort, below norm in the grade 5-8 cohort, and above norm in the grade 9-12 cohort. Local growth equalled the growth expected for at-norm achievement in the youngest cohort, fell below the growth expected of below-norm achievement in the grade 5-8 cohort, and fell below the growth expected for above-norm achievement in the oldest cohort.

2. Median language scores of Anglo students ended below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the youngest cohort, exceeded expected growth in the grade 5-8 cohort, and fell below both the norming-group growth and the growth expected of above-norm achievement in the oldest cohort.

3. Median mathematics scores of Anglo students remained below norm in the two youngest cohorts and at norm in the oldest cohort. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and equalled the expected growth in the youngest and oldest cohorts.

4. Median reading scores of black students remained below norm in all three cohorts. Local growth nearly equalled the growth expected for below-norm ahcievement in the two youngest cohorts, while falling below expected growth in the oldest cohort.

5. Median language scores of black students remained below norm in all three cohorts. Local growth fell below the growth expected of below-norm achievement in all three cohorts.

6. Median methematics scores of black students remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of expected growth in the youngest and oldest cohorts.

7. Median reading scores of Mexican-American students remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the grade 3-6 cohort and fell short of it in the two oldest cohorts.

8. Median language scores of Mexican-American students remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the two youngest cohorts and fell short of it in the grade 9-12 cohort.

9. Median mathematics scores of Mexican-American students remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in both the youngest and oldest cohorts.

10. Median reading scores of all students in the Southwest Subdistrict remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the youngest cohort and fell short of it in the two remaining cohorts.

11. Median language scores of all students in the Southwest Subdistrict remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the two youngest cohorts and fell short of it in the oldest cohort.

12. Median mathematics scores of all students in the Southwest Subdistrict remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in both the youngest and oldest cohorts.

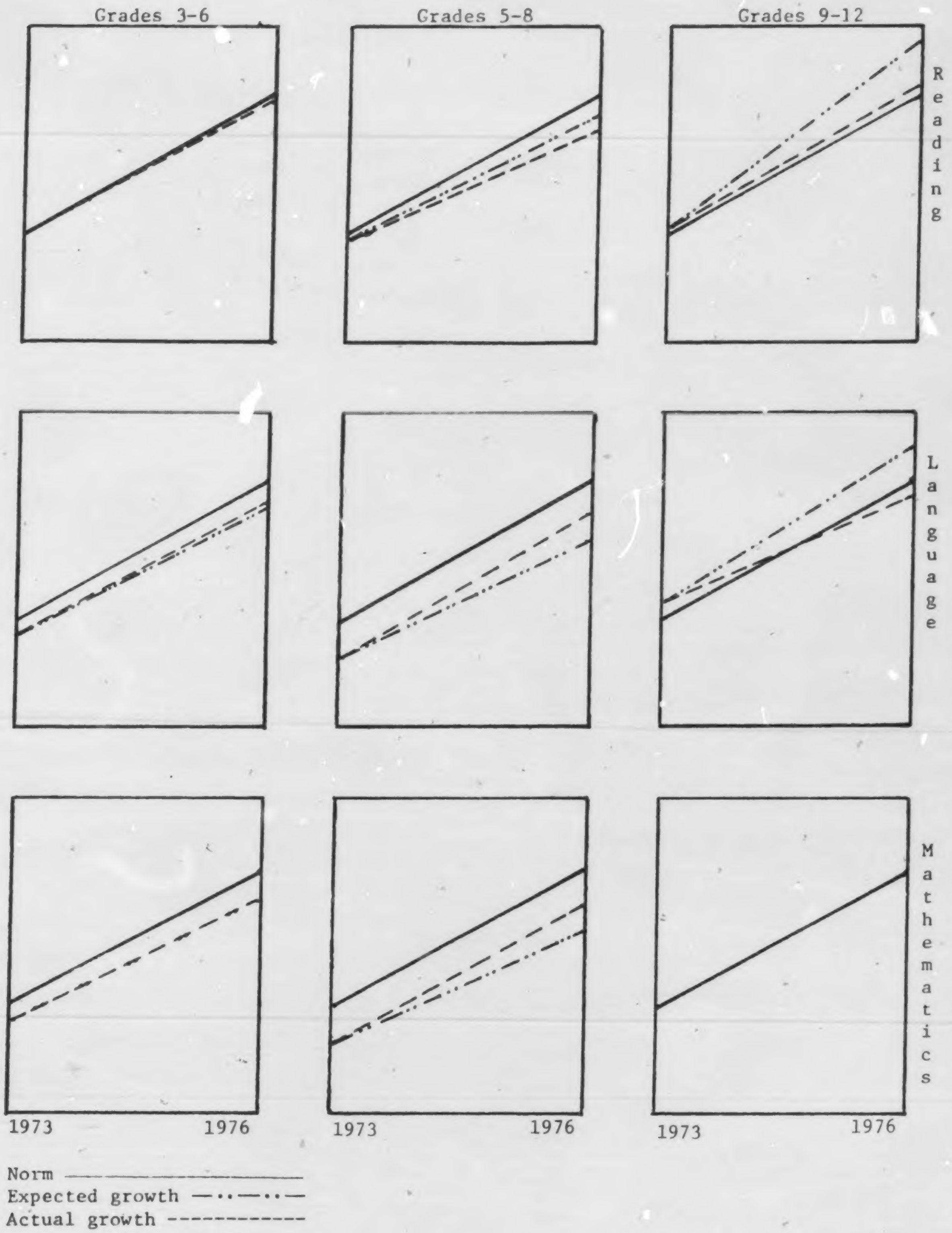
13. By comparing the percentile ranks of median scores in 1976 across achievement subtests, we can conclude that for Anglo students reading scores were highest in the grade 3-6 and grade 9-12 cohorts, language highest in the grade 5-8 cohort, and mathematics lowest in all three cohorts. For black students reading ranked highest and mathematics lowest in the two youngest cohorts; mathematics ranked highest and reading lowest in the oldest cohort. For Mexican-American students language ranked highest in the youngest cohort, reading highest in the grade 5-8 cohort, and mathematics highest in the oldest cohort; mathematics ranked lowest in the two youngest cohorts and reading lowest in the oldest cohort. For all students taken together in this subdistrict language ranked highest and mathematics lowest in the two youngest cohorts; mathematics ranked highest and reading lowest in the oldest cohort.

14. For all students taken together in this subdistrict local growth was greatest in reading for the youngest cohort, in language and mathematics for the grade 5-8 cohort, and in reading for the oldest cohort.

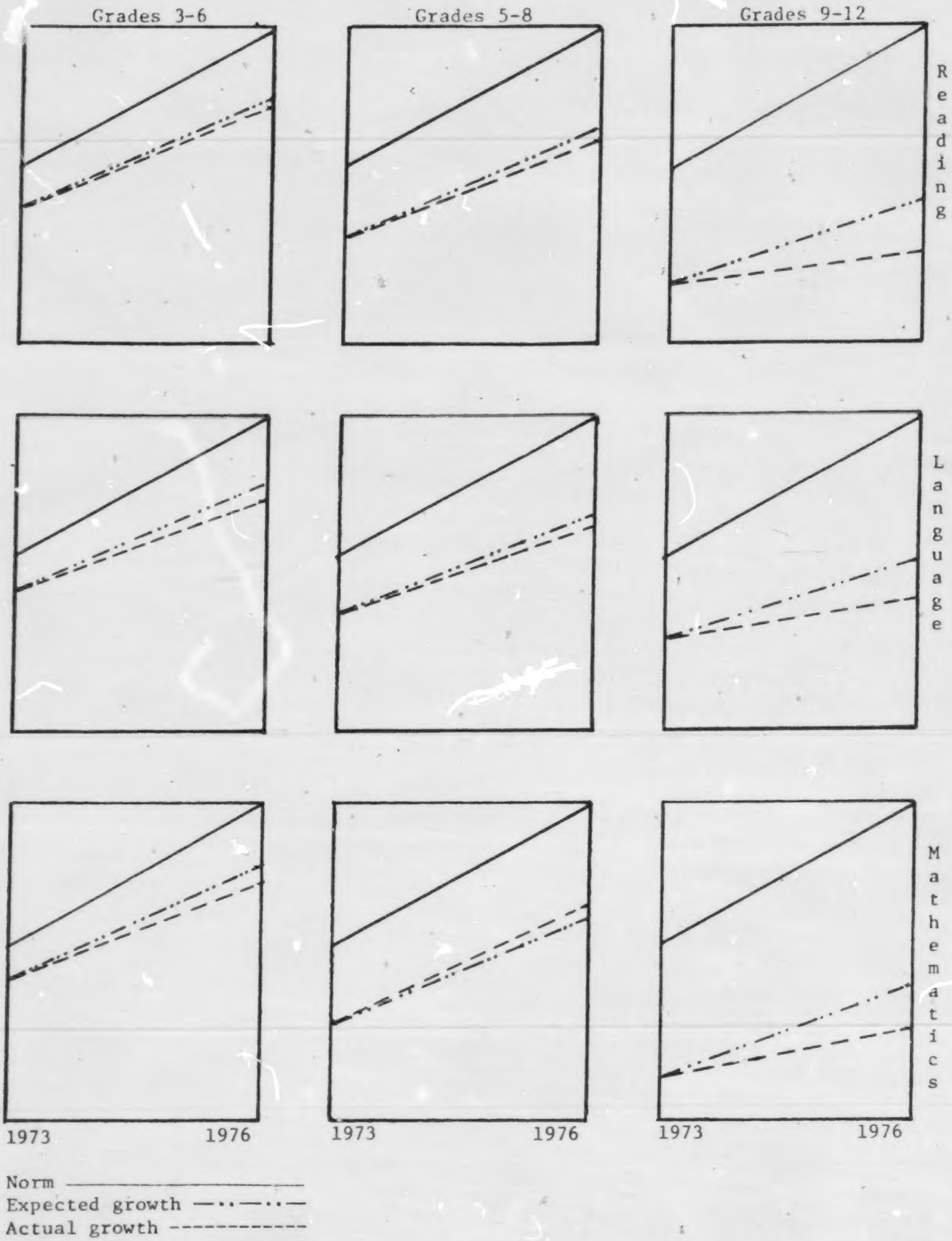
Cohort Sizes in the Southwest Subdistrict

Grade Cohort	Black	MexAm	Anglo	All Races
Reading				
3-6	565	389	577	1551
5-8	583	324	608	1532
9-12	435	127	559	1136
Language				
3-6	565	379	567	1531
5-8	581	326	605	1530
9-12	404	123	549	1091
Mathematics				
3-6	564	383	577	1544
5-8	587	330	628	1563
9-12	424	123	550	1111

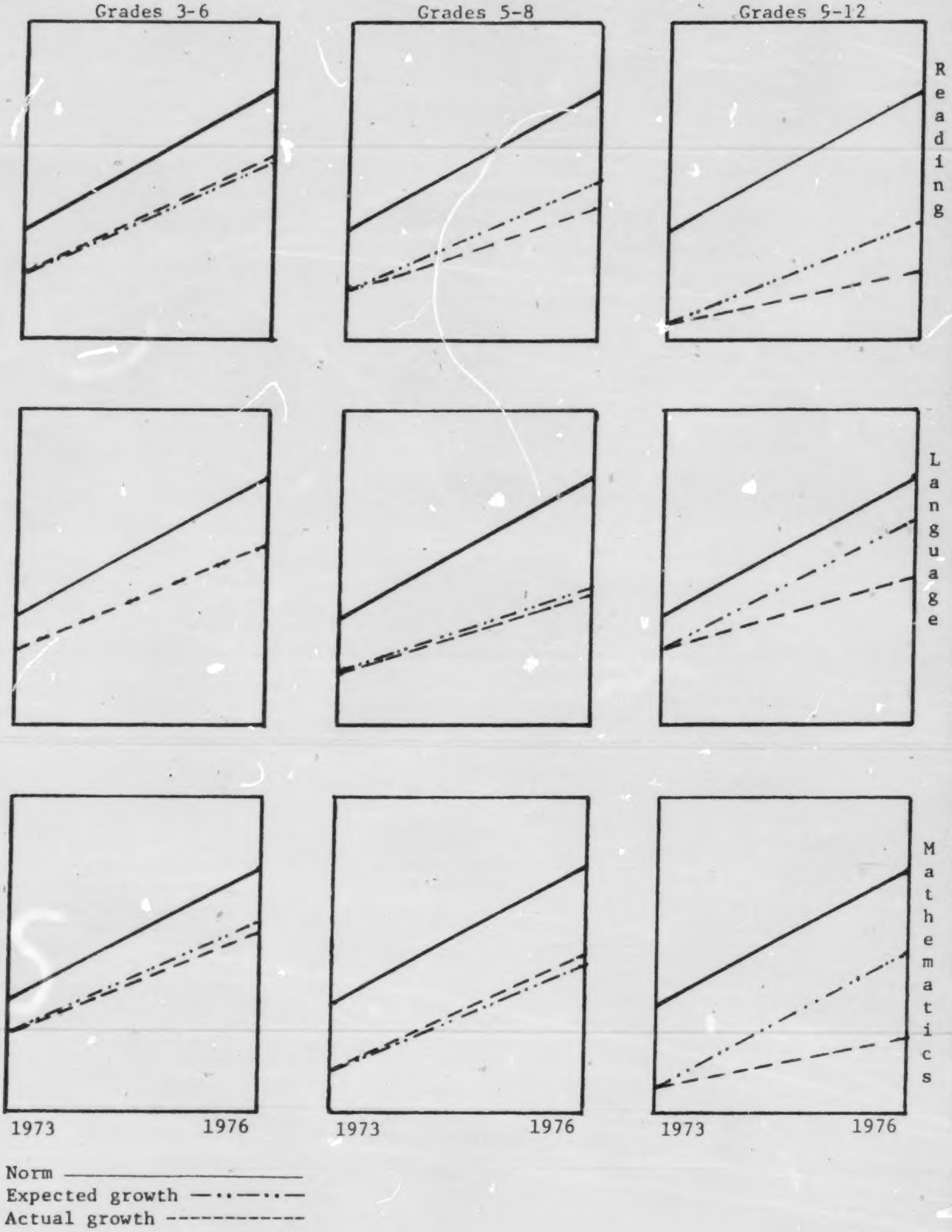
Southwest Subdistrict
Anglo



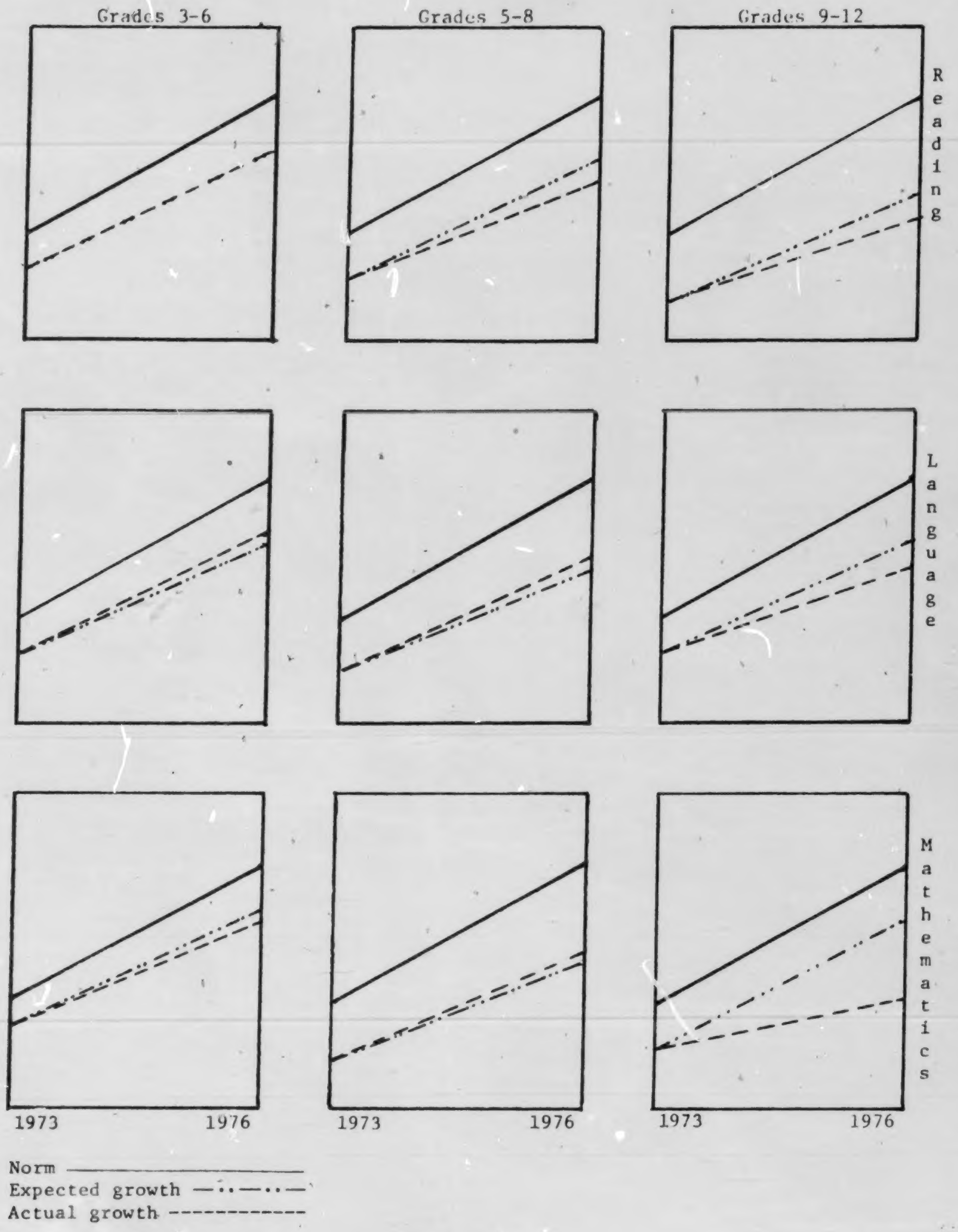
Southwest Subdistrict
Black



Southwest Subdistrict
Mexican-American



Southwest Subdistrict
All Students



Median Scores in the Southwest Subdistrict

	Reading			Language			Mathematics		
Grade Cohort	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976
Anglo									
3-6	27-54	27-55	55	26-51	28-55	50	24-50	28-57	50
5-8	44-68	45-74	71	37-68	45-74	60	39-68	43-76	62
9-12	34-49	33-48	52	33-44	31-46	49	9-12	9-12	12
Black									
3-6	18-40	27-55	41	20-39	28-55	42	20-41	28-57	44
5-8	31-51	45-74	53	32-50	45-74	52	31-53	48-76	51
9-12	21-24	33-48	30	22-26	31-46	30	6-7	9-12	8
Mexican-American									
3-6	18-42	27-55	41	21-42	28-55	42	21-42	28-57	45
5-8	33-53	45-74	56	33-52	45-74	53	34-57	48-76	55
9-12	24-29	33-48	34	28-34	31-46	41	7-8	9-12	10
All Students									
3-6	20-44	27-55	44	22-44	28-55	43	22-44	28-57	47
5-8	36-57	45-74	51	34-58	45-74	55	35-59	48-76	56
9-12	26-35	33-48	37	27-36	31-46	39	8-9	9-12	11

East Oak Cliff Subdistrict

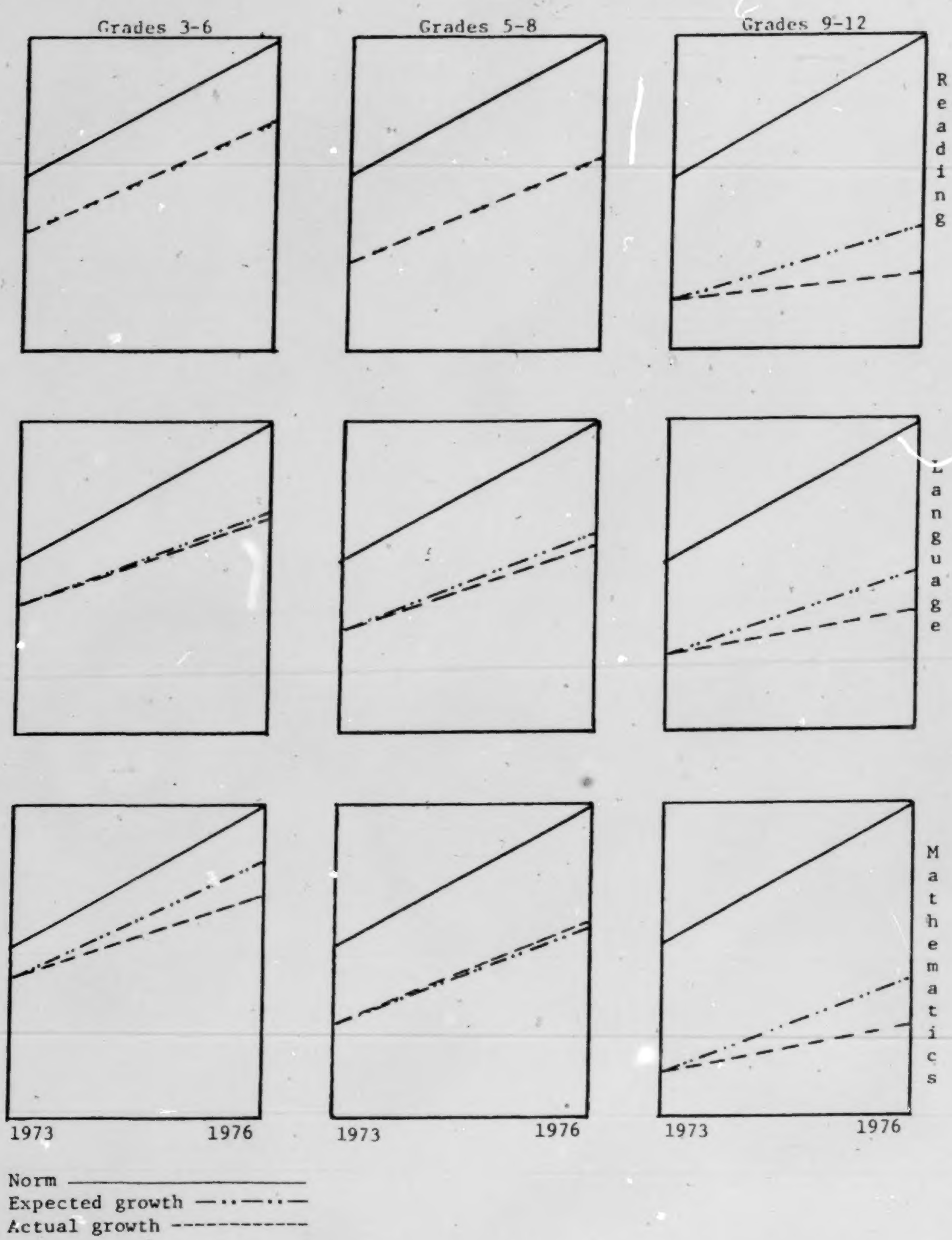
Longitudinal trends in median scores in the East Oak Cliff Subdistrict are displayed on a page of graphs and a table of ordinates from which the graphs were sketched. Each graph containes three curves indicating the growth of median scores. One indicates the growth of the median scores in the large-city norming group. Another indicates the actual growth in the local cohort. The third indicates the growth expected in the local cohort given its actual position in 1973. Attention to these graphs leads to the following inferences.

1. Median reading scores of all students in this subdistrict remained below norm. Local growth equalled the growth expected for below-norm achievement in the two youngest cohorts and fell short of it in the oldest cohort.
2. Median language scores of all students in this subdistrict remained below norm. Local growth nearly equalled the growth expected for below-norm achievement in the youngest cohort and fell short of it in the two oldest cohorts.
3. Median mathematics scores of all students in this subdistrict remained below norm. Local growth equalled the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in the two remaining cohorts.
4. By compaing the percentile ranks of median scores in 1976 across achievement subtests, we can conclude that for all students in this subdistrict reading ranked highest and mathematics lowest in the two youngest cohorts, and reading ranked lowest and mathematics highest in the oldest cohort.
5. Local growth was greatest in reading for the youngest cohort, in reading and mathematics for the grade 5-8 cohort, and in language for the oldest cohort.

Cohort Sizes in the East Oak Cliff Subdistrict

Grade Cohort	Black	MexAm	Anglo	All Races
Reading				
3-6	1420	16	10	1448
5-8	2083	43	18	2145
9-12	556	4	7	573
Language				
3-6	1412	15	10	1439
5-8	2053	43	18	2115
9-12	546	4	7	563
Mathematics				
3-6	1406	14	10	1432
5-8	2078	45	17	2141
9-12	557	4	7	574

East Oak Cliff Subdistrict
All Students



Median Scores in the East Oak Cliff Subdistrict

	Reading			Language			Mathematics		
Grade Cohort	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976
Black									
3-6	17-39	27-55	39	19-38	28-55	39	20-39	28-57	44
5-8	29-50	45-74	50	31-48	45-74	50	31-52	48-76	51
9-12	20-22	33-48	28	21-25	31-46	29	6-7	9-12	8
All Students									
3-6	17-39	27-55	39	19-38	28-55	39	20-39	28-57	44
5-8	29-50	45-74	50	31-48	45-74	50	31-52	48-76	51
9-12	20-22	33-48	28	21-25	31-46	29	6-7	9-12	8

Southeast Subdistrict

Longitudinal trends in median scores in the Southeast Subdistrict are displayed on four pages of graphs and a table of ordinates from which the graphs were sketched. Each graph contains three curves indicating the growth of median scores. One indicates the growth of median scores in the large-city norming group. Another indicates the actual growth in the local cohort. The third indicates the growth expected in the local cohort given its actual position in 1973. Attention to these graphs leads to the following inferences.

1. Median reading scores of Anglo students remained below norm in all cohorts. Local growth equalled the growth expected for below-norm achievement in the youngest cohort and fell short of it the two remaining cohorts.

2. Median language scores of Anglo students remained below norm in all cohorts. Local growth exceeded growth expected for below-norm achievement in the grade 5-8 cohort, equalled it in the youngest cohort, and fell short of it in the oldest cohort.

3. Median mathematics scores of Anglo students remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the youngest cohort, exceeded it in the grade 5-8 cohort, and fell short of it in the oldest cohort.

4. Median reading scores of black students remained below norm in all three cohorts. Local growth fell short of the growth expected for below-norm achievement in all three cohorts.

5. Median language scores of black students remained below norm in all three cohorts. Local growth nearly equalled the growth expected for below-norm achievement in the youngest cohort and fell farther short of it in the two remaining cohorts.

6. Median mathematics scores of black students remained below norm in all three cohorts. Local growth slightly exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in the two remaining cohorts.

7. Median reading scores of Mexican-American students remained below norm in all three cohorts. Local growth slightly exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in the two remaining cohorts.

8. Median language scores of Mexican-American students remained below norm in all three cohorts. Local growth equalled the

growth expected for below-norm achievement in the two yougnest cohorts and fell short of it in the oldest cohort.

9. Median mathematics scores of Mexican-American students remained below norm in all three cohorts. Local growth exceeded the growth expected for below-norm achievement in the grade 5-8 cohort and fell short of it in the two remaining cohorts.

10. Median reading scores of all students in the Southeast Subdistrict remained below norm in all three cohorts. Local growth euqalled the growth expected for below-norm achievement in the voungest cohort and fell short of it in the two remaining cohorts.

11. Median language scores of all students in the Southeast Subdistrict remained below norm in all three cohorts. Local growth equalled the growth expected for below-norm achievement in the two youngest cohorts and fell below it in the oldest cohort.

12. Median mathematics scores of all students in the Southeast Subdistrict remained below norm in all three cohorts. Local growth exceeded the growth expected of below-norm achievement in the grade 5-8 cohort, nearly equalled it in the youngest cohort, and fell short of it in the oldest cohort.

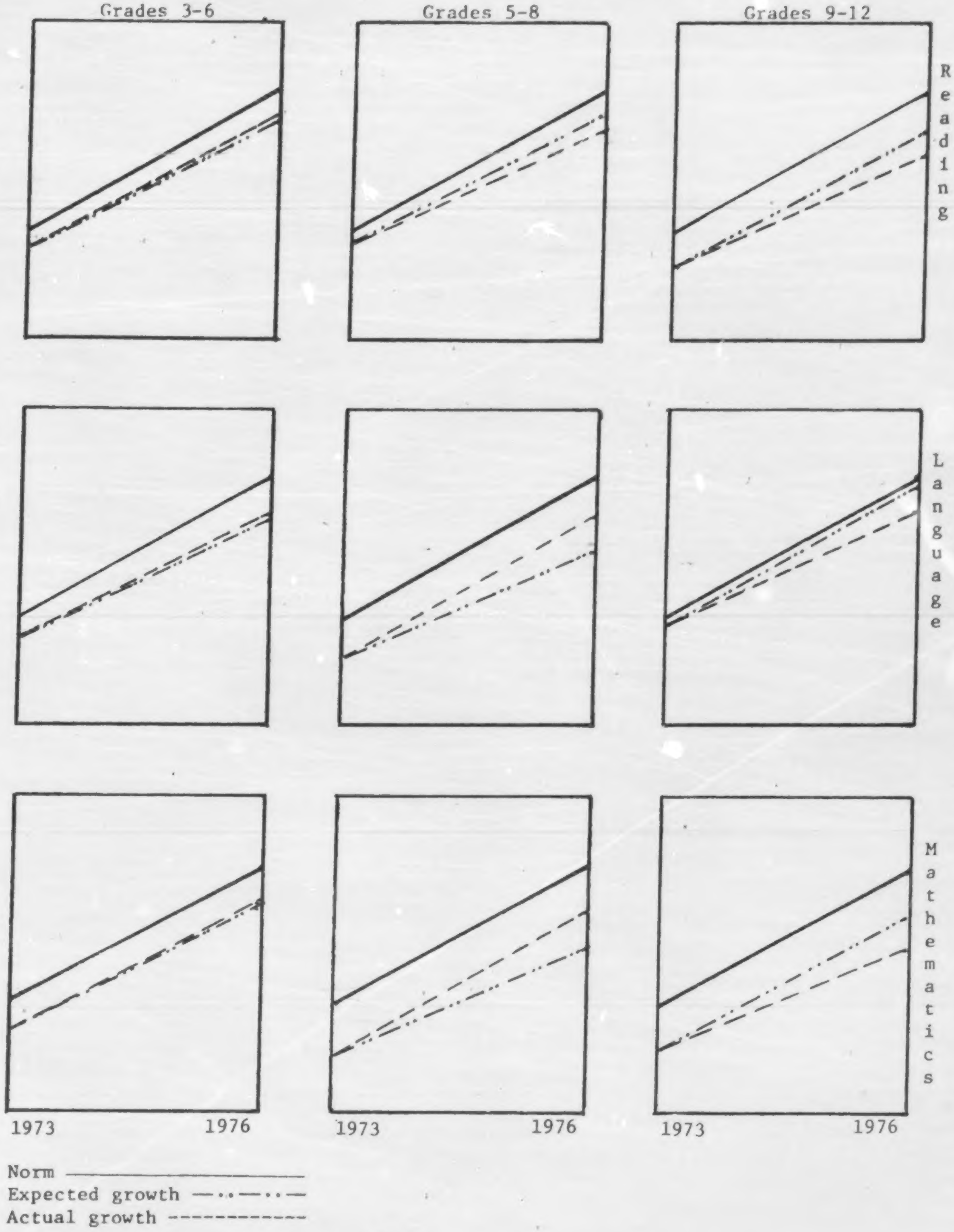
13. By comparing the percentile ranks of median scores in 1976 across achievement subtest, we can conclude that for Anglo students reading scores were highest and mathematics lowest in the two youngest cohorts; reading and mathematics were highest in the oldest cohort. For black students reading ranked highest in the two youngest cohorts and mathematics highest in the oldest cohort. For Mexican-American students language ranked highest and mathematics lowest in the two youngest cohorts; mathematics highest and reading lowest in the oldest cohort. For all students taken together in this subdistrict reading and language ranked highest in the two youngest cohorts; reading, language, and mathematics were essentially equal in rank in the oldest cohort.

14. For all students taken together in this subdistrict local growth was greatest in reading in the youngest cohort, in mathematics in the grade 5-8 cohort, and in language in the oldest cohort.

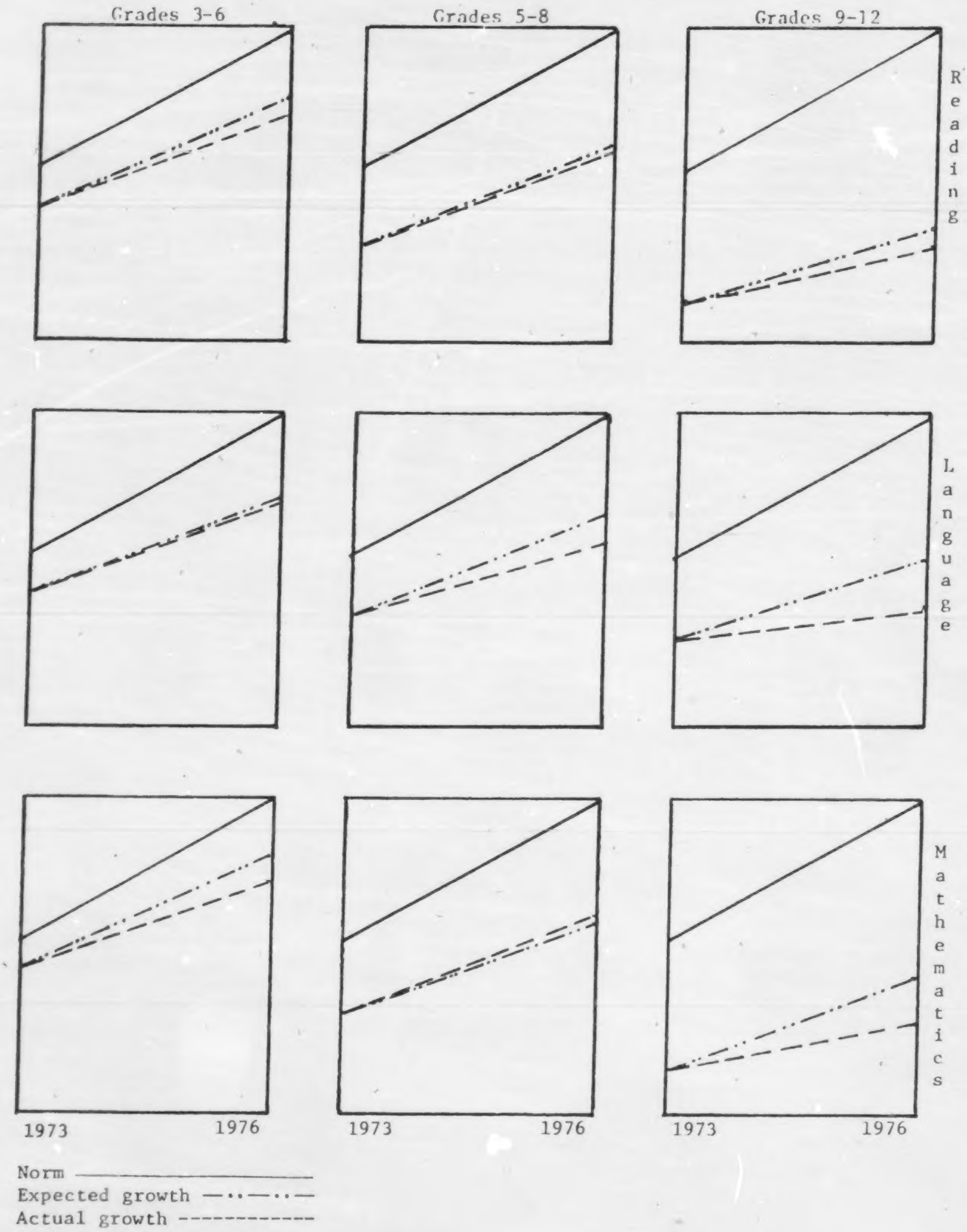
Cohort Sizes in the Southeast Subdistrict

Grade Cohort	Black	MexAM	Anglo	All Races
		Reading		
3-6	408	87	574	1072
5-8	702	121	995	1830
9-12	267	46	502	825
		Language		
3-6	403	86	570	1062
5-8	680	120	1002	1814
9-12	253	42	488	792
		Mathematics		
3-6	409	88	571	1071
5-8	669	120	1014	1815
9-12	268	46	497	821

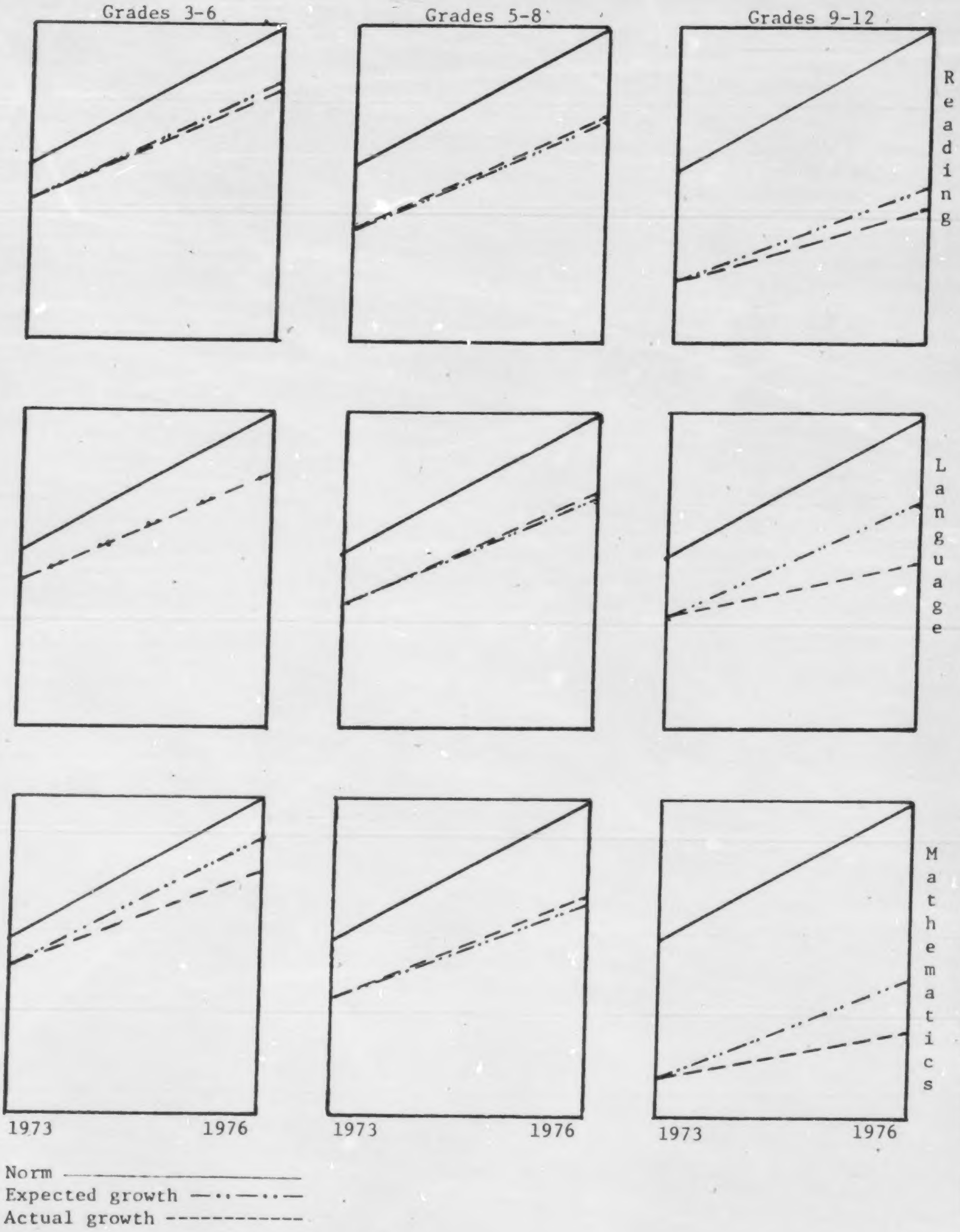
Southeast Subdistrict
Anglo



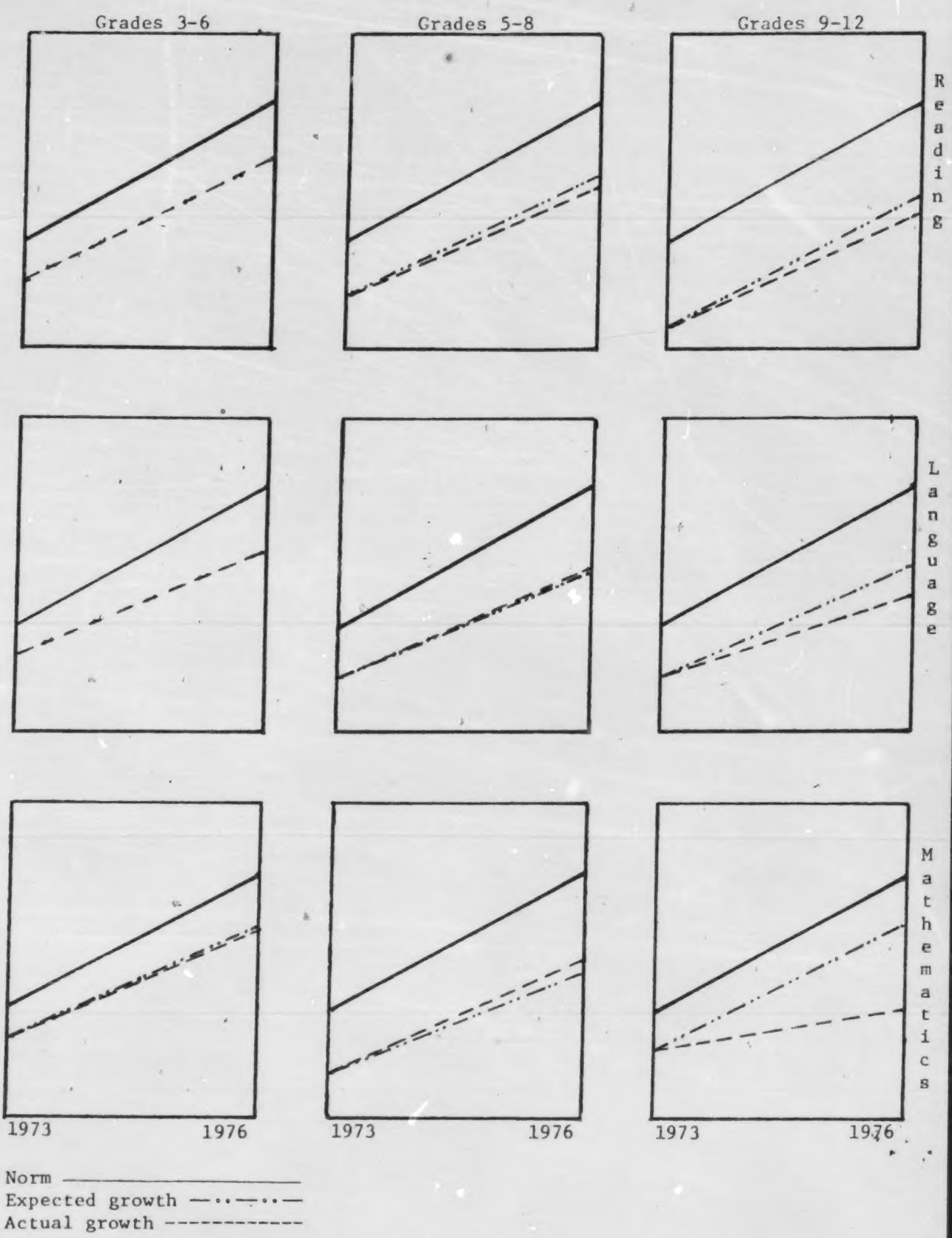
Southeast Subdistrict
Black



Southeast Subdistrict
Mexican-American



Southeast Subdistrict
All Students



Median Scores in the Southeast Subdistrict

	Reading			Language			Mathematics		
Grade Cohort	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976	Actual Medians 1973-76	Large-City Medians	Expected Median in 1976
Anglo									
3-6	24-51	27-55	50	24-48	28-55	47	23-50	28-57	49
5-8	43-66	45-74	70	36-64	45-74	58	37-66	48-76	59
9-12	30-41	33-48	44	30-42	31-46	45	8-10	9-12	11
Black									
3-6	18-39	27-55	41	19-38	28-55	39	20-39	28-57	44
5-8	28-48	45-74	50	31-46	45-74	50	31-52	48-76	51
9-12	19-25	33-48	27	22-25	31-46	30	6-7	9-12	8
Mexican-American									
3-6	19-41	27-55	42	21-42	28-55	42	22-42	28-57	47
5-8	33-57	45-74	56	35-57	45-74	56	35-58	48-76	56
9-12	22-30	33-48	32	25-30	31-46	36	6-7	9-12	8
All Students									
3-6	20-44	27-55	44	22-43	28-55	43	21-44	28-57	45
5-8	35-57	45-74	59	34-56	45-74	55	34-58	48-76	55
9-12	25-34	33-48	36	26-34	31-46	37	8-9	9-12	11

Additional Information:

IR77-009-9-123 Cohort Longitudinal Measurement Profiles, 1973-76, 1977, James A. Meier, Charlotte J. Eberhart.

76-834 Systemwide Longitudinal Achievement in Reading, Language, and Mathematics, 1973-75, 1976, James A. Meier.

75-590 Dallas Independent School District Achievement Indices, 1974-75, 1975, Robert L. Mendro.

75-551 Longitudinal Achievement, 1972-1975, 1975, James A. Meier, 160 pages.

74-307 A Longitudinal Study of Language Arts Achievement, 1971-74, 1974, James A. Meier, 29 pages.

74-306 A Longitudinal Study of Reading Achievement, 1971-74, 1974, James A. Meier, 29 pages.

74-305 A Longitudinal Study of Mathematics Achievement, 1971-74, 1974, James A. Meier, 36 pages.

Abstract

ITBS Achievement Profiles by Skills Classifications

Evaluator: Daniel S. Sheehan

Perspective

Perhaps the most important use of educational tests is to provide information for improving instruction. Poor student performance on these tests may indicate that instruction in a particular area was faulty or incomplete. Such information can be used to identify areas in which instructional emphasis needs modification and can allow teachers to differentiate instruction more fully providing for individual differences in needs and abilities.

The standardized test battery that is currently being used by the District, the Iowa Tests of Basic Skills (ITBS), is unique in that it provides two levels of diagnostic information. Not only is each level of the battery divided into subtests, but almost all of the subtests are divided into a detailed skills classification. Thus general areas of student strengths and weaknesses can be detected from subtest scores and, at a more defined level, specific sources of difficulty can be detected from detailed skill scores. This more detailed information can then be used by teachers to pinpoint instructional modifications.

The purposes of this report are to provide teachers and administrators with a basis for comparing student skill scores by determining student status in the District on ITBS skills classifications and to detect those skills on which student performance appears to be relatively weak. Initially the ITBS test battery will be described and the District's Systemwide ITBS Testing Program will be presented. The analysis of the ITBS skills classifications will then be discussed and the report will conclude with a presentation and a discussion of the results.

A Description of the ITBS

The ITBS tests are designed to measure intellectual skills in the broad areas of reading, language, work-study, and mathematics. As such, the tests are designed to provide teachers and administrators with the information that is essential for effective individualization of instruction, adequate educational guidance, and the comprehensive evaluation of the effectiveness of instructional procedures (Hieronymus and Lindquist, 1971).

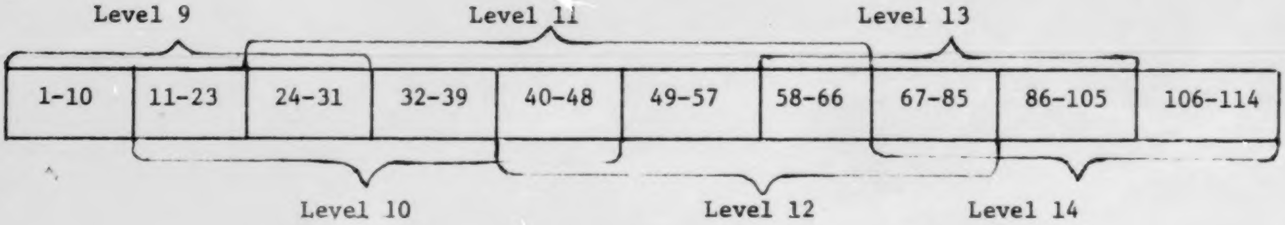
General Organization: The ITBS tests are organized into a Primary Battery and a Regular Battery. The Primary Battery, which is organized into two levels, consists of eight subtests measuring the five major areas of vocabulary, word analysis, reading comprehension, language skills, and mathematics concepts. The Regular Battery, which is organized into six levels, consists of 11 subtests measuring the five major areas of vocabulary, reading, language skills, work-study skills, and mathematics skills.

The levels of both the Primary Battery and the Regular Battery are designed to correspond roughly to chronological age. Thus Levels 7 and 8 of the Primary Battery are appropriate for seven and eight year old students or students in grades 2 and 3. The Regular Battery with Levels 9 through 14, is appropriate for students in grades 3 through 8. While the test level number corresponds to the chronological age of the children for whom the level, on the average, is appropriate, the corresponding grade level is approximately equivalent to six less than the test level.

While both levels of the Primary Battery are contained in separate test booklets, the six levels of the Regular Battery are contained in a single test booklet. Each subtest in the Regular Battery is continuous in that it covers the range of achievement development in all of the levels. The authors state that six overlapping levels of each test were assembled by combining blocks or modules of test items, each representing an increasingly higher level of skills development (Hieronymus and Lindquist, 1974). As an example, they cite the Vocabulary Subtest which is structured by combining ten blocks of items as shown below.

1-10	11-23	24-31	32-39	40-48	49-57	58-66	67-85	86-105	106-114

Yet students taking the Vocabulary Subtest at any one test level are not required to respond to all 114 items. Rather, they respond to a continuous subset of the 114 items, the subset being defined according to the level assigned to the group (Olson, 1975). For example, the six levels of the Vocabulary Subtest are structured as shown below.



The authors (Hieronymus and Lindquist, 1974) feel that the overlap of the items between successive grades reflects the overlap in the objectives and content of instruction and provides appropriate continuity in measurement corresponding to that in instruction.

The 96-page Regular Battery booklet contains a total of 1232 test items. The numbers of items per level range from 374 for Level 9 to 507 for Level 14.

Detailed Skills Classification: A unique feature of the ITBS is its detailed skills classification. Every item in all of the subtests (except the Vocabulary Subtest) in both the Primary and Regular Batteries is designed to measure a particular skill.

Administration of the ITBS Within the District

The ITBS was administered to over 50,000 students during the fall of 1975. The administration plan consisted of testing all of the students in grades 2, 4, 6, and 8. Only students in Area IV in grades 3, 5, and 7 were tested.

Assignment of ITBS levels to grades was straightforward for grades 2 and 3. Level 7 of the Primary Battery was administered to second grade students while Level 8 of the Primary Battery was administered to third grade students. For grades 4 through 8, however, the assignment of ITBS levels to grades was made on the basis of testing data obtained from the 1974-75 Systemwide Testing Program. Levels were assigned according to the average grade-equivalent scores for given grades within specific schools. For example, if the average grade-equivalent score for grade 6 in a specific school was 6.0, then the grade was assigned Level 12. On the other hand, if the average grade-equivalent score earned by grade 6 was 4.0, the sixth grade was assigned Level 10 of the ITBS (Olson, 1975).

A summary of the assignment of ITBS levels to grades is presented in Table 1 (Olson, 1975).

Table 1

Summary of Assignment of ITBS Levels to Grades

	Level of ITBS							
Grade	7	8	9	10	11	12	13	14
2	X							
3		X						
4			X	X				
5			X	X				
6				X	X	X		
7					X	X		
8						X	X	X

Analysis of ITBS Skills Data

Status of Student Performance on ITBS Skills Classifications: The initial purpose of this report was to assess the status of student performance on ITBS skills classifications. This was done by:

1. Extracting from the Fall, 1975 ITBS data tapes that part of each student's record that included detailed skills classification scores and test-level, grade-level, ethnicity, and sex information,

2. Sorting the extracted records on the basis of a sex within ethnicity within grade-level within test-level key, and

3. Processing the sorted skills classification scores with a modified version of a computer program written by Olson and Sheehan (1975) and producing summary statistics on the skills classifications for each combination of test-level, grade-level, ethnicity, and sex.

ITBS Skill Weaknesses: The second purpose of this study was to detect those skills on which student performance was relatively weak. This was accomplished by:

1. Analyzing the summary statistics for each test-level, grade-level combination to detect mean skill scores that were at the chance level of scoring, and

2. Reporting as weaknesses those skills that were at the chance level of scoring on each grade level at a particular test level.

Results and Discussion

Status of Student Performance on ITBS Skills Classifications: Because of the number of pages (over 1,000), the summary statistics for the skills classifications are presented in a separate appendix where they are ordered by test level-grade level combinations.

A word of caution should be voiced. Most of the skills classifications consist of only a few items. Thus skills classification scores for an individual student can be extremely unstable and inferences about a single student's strengths and weaknesses should be interpreted with caution and supplemented with additional information.

Perhaps the most useful direct application will be the diagnosis of group strengths and weaknesses by comparing group scores (classes or schools) to these results. Unlike individual scores, group scores are much more stable, and hence, potentially more useful.

ITBS Skill Weaknesses: It is interesting to note that there is little overlap in skill weaknesses in the Primary Battery. Skills that were weak on Test Level 7 were, for the most part, not weak on Test Level 8. The specific skills at each test level where total group scoring was at the chance level are listed in Table 2.

Unlike the Primary Battery, there was considerable overlap in skill weaknesses across levels of the Regular Battery. Table 3 indicates the test levels of those skills that were at the chance level of scoring for the total group on at least two test levels. Of interest is the clustering of weaknesses in the area of Capitalization, particularly at the lower test levels. The areas of Punctuation and Usage also have numerous weak skills. In addition, certain skills exhibit weaknesses across almost all of the test levels in which they were given. These skills are:

1. Spelling: Plural forms,
2. Punctuation: Use of apostrophe,
3. Usage: Miscellaneous word forms,
4. Reading Graphs and Tables: To determine relative rates or trends, and
5. Mathematics Problem Solving: Ratio and proportion.

Given the exploratory nature of this study, those skills designated as weaknesses should be regarded as relative rather than absolute. As such, they should be interpreted in accordance with the goals of the curriculum at each test level. Curricular modifications may, however, be indicated when skills are stated as goals and student scoring on the skills is at the chance level.

Table 2

A List by Test Level of Primary Battery Skills Classifications with Chance Level, Total Group Scoring

Test Level	Skill
7	Word Analysis: Silent letters Reading Comprehension: Discerning the purpose or main idea of a paragraph or selection Spelling: Interchanged letters Mathematics Problems: Division
8	Word Analysis: Medial consonant sounds Long vowel sounds Comparing vowel sounds Reading Comprehension: Recognizing and understanding implied facts and relationships Evaluating what is read Spelling: l, el, le substitutions y, ey, i substitutions Mathematics Problems: Subtraction followed by addition

Table 3

Regular Battery Skills Classifications and Test Levels with Chance Level, Total Group Scoring on at Least Two Test Levels

Skill	Test Level 9	10	11	12	13	14
Reading Comprehension						
Organization	Not Given	x	x			
Spelling						
Plural forms	Not Given	x	x	x		Not Given
Capitalization						
Words indicating family relationship, when used specifically and without a possessive pronoun	Not Given	x	x			
Titles of respect, honor, or rank	x	x		Not Given	Not Given	Not Given
In writing letters the first word of the complementary close	x	x	x			
Titles of books, music, magazines, etc.	x	x				Not Given
Names of streets, avenues, etc.	x	x	x			
Names of rivers, oceans, canals, mountains, etc.			x		x	Not Given
Names of specific organizations	x	x	x			
Names of important historical periods or events	Not Given	Not Given	x			x
Specific brand names	Not Given	x	x			
Over-capitalization	x	x	x			
Punctuation						
Use of comma	x	x				
Use of apostrophe	x	x		x	x	x
Use of double quotation marks	Not Given	x	x			
Use of colon			Not Given	x	x	x
Use of semicolon to separate co-ordinate clauses not joined by a conjunction	Not Given	Not Given	Not Given	x	x	x

Table 3 (continued)

Regular Battery Skills Classifications and Test Levels
with Chance Level, Total Group Scoring on at
Least Two Test Levels

	Test Level					
Skill	9	10	11	12	13	14
Usage						
Use of adjectives and adverbs	x					x
Avoidance of double negatives	x		x			
Avoidance of redundancies	x	x				x
Miscellaneous word forms	x	x		Not Given	Not Given	x
Map Reading						
Ability to read and compare facts from one or more pattern maps	Not Given	x	x		x	
Reading Graphs and Tables						
To determine relative rates or trends	x	x	x	x		x
Mathematics Problem Solving						
Measurements	Not Given			Not Given	x	x
Ratio and Proportion	Not Given	Not Given	x		x	x

References

Hieronymus, A. N., and Lindquist, E. F. *Iowa tests of basic skills forms 5 & 6 -- Manual for administrators, supervisors, and counselors*. Boston, Massachusetts: Houghton Mifflin Company, 1974.

Hieronymus, A. N., and Lindquist, E. F. *Iowa tests of basic skills forms 5 & 6 -- Teacher's guide for administration, interpretation, and use*. Boston, Massachusetts: Houghton Mifflin Company, 1971.

Olson, G. H. Technical Study of the ITBS. *Dallas Independent School District Research Report Number 75-548*. Dallas, Texas: Department of Research, Evaluation, and Information Systems, Dallas Independent School District, 1975.

Olson, G. H., and Sheehan, D. S. An ALGOL item analysis program. Dallas, Texas: Department of Research, Evaluation, and Information Systems Computer Program Documentation, Dallas Independent School District, 1975.

Additional Information

The summary statistics tables are bound in Institutional Research Technical Supplement #4, volumes 1-5. They are available for inspection at the Research, Evaluation, and Information Systems offices.

In addition, a more detailed version of this report is available from the Institutional Research files.

76-841	ITBS Achievement Profiles by Skills Classifications, 1976, Daniel S. Sheehan, Mary Marcus, 53 pages.
75-548	Technical Study of the ITBS, 1975, George H. Olson, Stephanie Bennett, 134 pages.
74-233	An Investigation of School Standardized Achievement Tests, 1974, Harold W. Lang, 81 pages.
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73-184	Test Use and Interpretation in the DISD, 1973, George H. Olson, 34 pages.
73-183	Test Administration Practices in the DISD, 1973, George H. Olson, 19 pages.

73-182 Technical Characteristics of Standardized Tests Used in the DISD, 1973, George H. Olson, 40 pages.

73-176 Group Test Reports Used in the Dallas Independent School District, 1973, Harold W. Lang, 13 pages.

72-119 Selected Characteristics of Standardized Tests Used in the DISD, 1973, George H. Olson, 129 pages.

72-54 Selected Characteristics of Standardized Tests Used in the Dallas Independent School District, 1972, George H. Olson, 23 pages.

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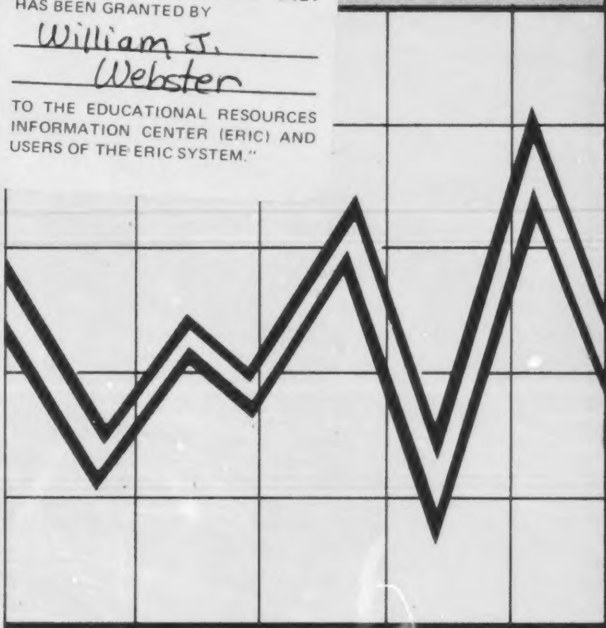
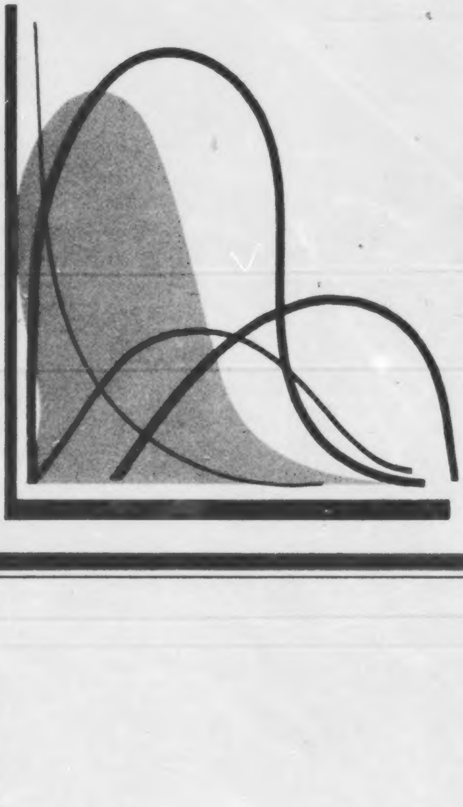
ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77



VOLUME II — SYSTEM-WIDE CONTEXT EVALUATION



DEPARTMENT OF RESEARCH, EVALUATION AND INFORMATION SYSTEMS

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dallas independent school district

DR. NOLAN ESTES, *General Superintendent*

Dallas Independent School District
Dr. Nolan Estes, General Superintendent

Development Division
Mr. Rogers L. Barton
Associate Superintendent

Department of Research, Evaluation,
and Information Systems
Dr. William J. Webster
Deputy Associate Superintendent

ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77
VOLUME II
SYSTEM-WIDE CONTEXT EVALUATION

The majority of reports abstracted in this document were completed by the District's Research and Evaluation Branch of the Department of Research, Evaluation, and Information Systems during the 1976-77 school year and were presented through the Educational Program and Evaluation Committee to the Board of Education. Several studies were completed in previous years; but, because they affect significant decisions, they too are abstracted in this document.

Approved report of the Department of Research,
Evaluation, and Information Systems

William J. Webster
William J. Webster
Deputy Associate Superintendent
Research, Evaluation, and Information Systems

November, 1977

Dallas, Texas

Abstract

System-wide Curriculum Assessment 1974-75: Language Arts

Evaluators: William T. Denton and Cathy Birkelbach

Purpose of the Evaluation: This study is part of a coordinated series of system-wide studies designed by the Department of Research, Evaluation, and Information Systems (R&E) to evaluate various priority areas of the Dallas Independent School District (DISD). The purpose of this study was to assess teacher perceptions and attitudes toward language arts materials provided by the District. It also sought to determine what other language arts materials were being used besides those provided by the central office.

The goals for the study were to determine:

- The extent to which textbooks were used.
- The availability of textbooks.
- Ability level for which textbooks were appropriate.
- Number of days per week the various textbooks were used.
- The quality of the textbooks.
- Chapters and/or units within each textbook actually taught.
- Other prepared programs used in the classrooms.
- Supplementary books used as texts.
- Use, availability and quality of curricular materials such as workbooks, films, etc.
- Content areas or units not adequately covered by the textbooks for which teachers created units.
- Student ability levels for which materials were not available either in sufficient quantity or of sufficient quality.

The information obtained from this study was reported to the District's Executive Team and Board of Education for their use in shaping strategies for restructuring the present language arts curriculum.

Sample: The sample of schools for the Curriculum Study was randomly selected from school clusters. The clusters were formed based on three criteria: achievement, ethnic composition and socioeconomic status.

Achievement was defined as student performance on national tests as reported in the Management Profiles 1973-74. For elementary schools, the averages of z-scores for grades two and four were weighed and added to make a combined score. The process was similar for junior high schools, except that grades seven, eight, and nine were used. The same process was repeated for senior high schools, with the substitution of grades ten and eleven.

Ethnic composition was defined as the percentage of Anglo, black, and Mexican-American students attending the school during the 1973-74 year. Only three ethnic groups were used since in all cases they represented at least 96% of the school population.

Socioeconomic status had been defined in a previous R&E study of school attendance areas. Rankings were on a one-to-five scale, from lowest to highest.

Each of these criteria was weighted, achievement receiving greatest weight, ethnic composition next, and socioeconomic getting less weight than the other two variables.

After the preliminary clusters were formed, they were examined and modified in a meeting with the Assistant Superintendent of Elementary Operations, the Assistant Superintendent of Secondary Operations, and the Director of Program Services and Planning.

At least one school was selected from each cluster, with two schools being selected from those clusters containing ten or more schools. The schools included in the sample are shown in the following table.

Sample of Schools for Curriculum Study

Elementary Schools	Junior High Schools	High Schools
John F. Peeler (1-7)	E. B. Comstock (7-9)	Seagoville (7-9)
E. L. DeGolyer (1-7)	Thomas J. Rusk (7-9)	Lincoln (9)
James W. Fannin (1-6)	Sarah Zumwalt (7-9)	
Lisbon (1-6)	Fred F. Florence (7-9)	
City Park (1-4)	R. T. Hill (7-9)	
James Bowie (1-6)	W. E. Greiner (7-9)	
J. W. Ray (1-3)	William H. Atwell (7-9)	
Central (5-6)	J. L. Long (8-9)	
N. W. Harllee (1-6)		
Stephen C. Foster (1-6)		
Thomas L. Marsalis (1-6)		
Leslie A. Stemmons (1-6)		
Annie W. Blanton (1-6)		
Obadiah Knight (1-6)		
Urban Park (1-6)		
H. S. Thompson (1-4)		
William M. Anderson (1-6)		
Edna Rowe (1-7)		
Harry C. Withers (1-7)		

In each of the sample schools all teachers (N=376) who taught any of the first through ninth grades in language arts received survey instruments corresponding to grade and subject area taught.

Evaluation Design: It was decided that to obtain input from a large number of teachers the best procedure was to conduct a mail-out survey using the District's mail delivery system. It was necessary to develop a survey instrument to obtain maximum input while using a minimum of teacher time. This necessitated a number of interviews with administrators and teachers to obtain the information desired for developing the first trial instrument. The instrument was then put through a series of design tests in several schools in the District. A final survey instrument was developed for each grade, 1-9. The intent of the questions asked each teacher was identical across grade level; only the materials and content areas referred to by the questions differed. The survey was conducted during the month of April.

The primary limitation of this study was that the sample of teachers was not randomly selected from the total population. The schools were chosen randomly, and then all language arts teachers from grades 1-9 were placed in the sample. The implication of this limitation is that the reader must exercise caution when interpreting the results and generalizing them to the entire teacher population of language arts teachers in grades 1-9.

Evaluation Results: The results of this study are presented with the full understanding that there is no such thing as "the" language arts curriculum for the DISD. There is a great deal of altering and customizing of curriculum within each classroom within the sampling limitations previously described. The responses categorized and summarized herein reflect a cross-section of attitudes toward textbooks and curricular materials provided by the District. It is quite possible that some special programs have not been included in this study.

Respondents generally reported favorable opinions toward the commonly used language arts textbooks. One concern consistently reported, however, was the lack of sufficient quantity or quality of materials to teach below-average students.

First-grade respondents reported that there was a lack of pre-first grade texts for use with beginning readers. Green Feet, a pre-first reader was, however, the most generally available and most often used. Respondents seemed to be relatively impressed with all pre-first readers. All of the first-grade texts adopted by the District appeared to be available in sufficient quantity and generally appropriate for all students and especially average students. The only exception relative to appropriateness was Signposts which teachers reported using with higher level students. Signposts, Better Handwriting for You, and From Sound to Words were the most often used by respondents. All textbooks were viewed as good to excellent in quality, except New Directions in English, 1, about which opinions varied from poor to good. In the comments section of the instrument, books judged unsatisfactory for use in the classroom were: (a) New Directions in English, 1 (b) Getting Ready to Read (Houghton-Mifflin pre-primer), (c) Houghton-Mifflin basal texts and (d) Better Handwriting for You. Creative writing was a topic which respondents felt needed supplementation. One program adopted by the District to supplement the curriculum, The Palo Alto Reading Program published by Harcourt-Brace, and also the DISD-developed Communications program were reported as being used fairly extensively. The special programs most often used were Southwest Regional Laboratories (SWRL 1), Behavioral Research Laboratories (BRL), and Science Research Associates (SRA). The data suggest that teacher-respondents felt that materials essential to the curriculum were: charts, workbooks, flashcards, dittos, pictures, and sentence strips. Of these essential materials, all were available in sufficient quantity except charts and and sentence strips. All essential materials were considered good in quality.

The second-grade teacher-respondents general opinion of the textbooks was that all textbooks were available in sufficient quantity. All reading books were reported as appropriate for average to above average students as was New Directions in English, 2. Secrets and Rewards appeared to be the most often used of the reading books. All the readers were generally thought to be good to excellent in quality, as was Better Handwriting for You, 2 and Spell Correctly, 2. Several teachers expressed the feeling that New Directions in English, 2 was unsatisfactory for use in the classroom. Respondents reported supplementing the curriculum with units on capitalization, punctuation, and verb usage, and The Palo Alto Reading Program which is District-adopted. Special programs used extensively were Hoffman, BRL, and SRA. The three materials rated essential by respondents were charts, workbooks, and dittos of which all but charts were reported as sufficiently available. All essential materials were rated as good in quality. There were many insufficiencies reported among supplementary materials.

At the third-grade level, all textbooks were available in sufficient quantity to the majority of respondents. All were also rated as good to excellent in quality with the exception of Better Handwriting for You, 3 which was rated as fair to good. The extent of use varied widely for all seven adopted texts, although most texts seemed to be appropriate for average and above-average students. The Palo Alto Reading Program was again mentioned as a supplement to the curriculum. New Directions in English, 3 was rated by several respondents as unsatisfactory for use in the classroom. Special programs commonly used were SRA, Hoffman, and BRL. The materials felt to be essential to the curriculum at the third-grade level were charts, workbooks and dittos, of which charts and workbooks were reported as insufficient in quantity.

All three essential materials were rated as good in quality. All but one of the sixteen materials surveyed were not sufficiently available.

The fourth-grade language arts respondents considered all four adopted textbooks to be available in sufficient quantity. All were rated as good in quality, except New Directions in English, which was rated as poor. All texts were reported as used fairly extensively and were appropriate for various levels of ability. The Palo Alto Reading Program was mentioned by several respondents as part of the language arts curriculum in their classrooms. The special programs most often used were SRA and Hoffman. Dittos was the only material reported as essential to the language arts curriculum at the fourth-grade level. They were also available in sufficient quantities and of good quality. The majority of supplementary materials were insufficiently available and of good quality.

The fifth-grade curriculum included four language arts texts which were all viewed very positively by respondents with the exception of New Directions in English which was rated as poor to fair in quality. Respondents identified many kits and textbooks used in addition to the adopted ones. Nearly half of the respondents reported using SRA materials. None of the materials listed on the instrument were considered essential and eighty percent of those considered to be supplementary were either unavailable in sufficient quantity or not at all available.

The sixth-grade teacher-respondents viewed all of the four adopted texts as sufficiently available with varied appropriateness for all but below-average students. All texts except Better Handwriting for You were reported as used extensively, and all but New Directions in English were reported as good to excellent in quality. New Directions in English was judged unsatisfactory for use in the classroom by several respondents. An additional book entitled Treasure Gold, published by D. C. Heath, was also used by several respondents as an integral part of the curriculum. The special program most often mentioned was SRA. None of the materials listed on the instrument were considered essential, although seventy-five percent of those rated as supplementary were insufficiently available.

Twelve texts were adopted by the District for use with the seventh-grade language arts curriculum. Of those adopted, English 8, 1st Edition appeared to be the most often used, although it was not highly regarded by respondents. The spelling book and several of the literature textbooks were apparently quite adequate. Many programs and kits were mentioned as supplementary materials, especially SRA materials, which were used by half of the respondents. Many additional textbooks were used including several designed for earlier grades. There were also many teacher-made units being used to support the textbooks, the most common among them dealing with basic grammar. None of the materials listed on the instrument were considered essential to the seventh-grade language arts curriculum.

As seen from the data provided by the eighth-grade respondents, none of the twelve adopted texts was used more than 1 to 2 days per week. Apparently, English 8, 1st Edition, was the most commonly used general English book, although it was not highly regarded by respondents. Several teachers reported that they developed supporting units for teaching grammar. Many programs, kits, and books were identified as being used to supplement the language arts textbooks. None of the categories of materials was viewed as essential to the teaching of eighth-grade language arts.

A review of the data provided by ninth-grade respondents revealed that they generally used two of the twelve adopted texts - English 9, 1st Edition and Insights: Themes in Literature. Of the two books, the literature book was the more highly regarded. It seems that none of the general English books was very highly regarded. Many different programs and kits were identified as being used as supplements to the texts. The most commonly mentioned series was Adventures in Reading, and the most commonly used teacher-created units were on topics of grammar and poetry. None of the materials listed on the instrument was considered essential to the ninth-grade language arts curriculum.

Since films are commonly used at all grade levels, responses toward this media were summarized across all grade levels. In the primary grades (1-3) language arts respondents regarded films as a supplementary part of the curriculum, sufficiently available, and good in quality. At the elementary level (4-6), films were viewed as supplementary, sufficiently available, and good in quality. Junior high level respondents considered films supplementary, insufficiently available, and fair in quality.

At the primary level, grades one through three, respondents seemed to be in agreement across grade level as to the materials considered essential. These were charts, workbooks, and dittos. Data from the three grades revealed that the general feeling was that workbooks were sufficiently available and good in quality, charts were insufficiently available and good in quality, and dittos were sufficient in availability and of good quality.

There was no agreement across grades at the elementary and junior high levels regarding the use of materials, therefore no general conclusions could be drawn that would consistently apply to the use of materials for grades 4-6 and 7-9.

Additional Information:

75-567 System-wide Curriculum Assessment 1974-75: Science, 1975, William T. Denton, Cathy Birkelbach, 81 pages.

75-566 System-wide Curriculum Assessment 1974-75: Mathematics, 1975, William T. Denton, Cathy Birkelbach, 95 pages.

75-565 System-wide Curriculum Assessment 1974-75: Social Studies, 1975, william T. Denton, Cathy Birkelbach, 82 pages.

75-564 System-wide Curriculum Assessment 1974-75: Language Arts, 1975, William T. Denton, Cathy Birkelbach, 133 pages.

75-566

Abstract

System-wide Curriculum
Assessment 1974-75: Mathematics

Evaluators: William T. Denton and Cathy Birkelbach

Purpose of the Evaluation: This study is part of a coordinated series of system-wide studies designed by the Department of Research, Evaluation, and Information Systems (R&E) to evaluate various priority areas of the Dallas Independent School District (DISD). The purpose of this study was to assess teacher perceptions and attitudes toward mathematics materials provided by the District. It also sought to determine what other mathematics materials were being used besides those provided by the central office.

The goals for the study were to determine:

- The extent to which textbooks were used.
- The availability of textbooks.
- Ability level for which textbooks were appropriate.
- Number of days per week the various textbooks were used.
- The quality of the textbooks.
- Chapters and/or units within each textbook actually taught.
- Other prepared programs used in the classrooms.
- Supplementary books used as texts.
- Use, availability and quality of curricular materials such as workbooks, films, etc..
- Content areas or units not adequately covered by the textbooks for which teachers created units.
- Student ability levels for which materials were not available either in sufficient quantity or of sufficient quality.

Sample: The sample of schools for the Curriculum Study was randomly selected from school clusters.

The clusters were formed based on three criteria: achievement, ethnic composition, and socioeconomic status.

Achievement was defined as student performance on national tests as reported in Management Profiles 1973-74. For elementary schools averages of z-scores for grades two and four were weighted and added to make a combined score. The process was similar for junior high schools, except that grades seven, eight, and nine were used. The same process was repeated for senior high schools, with the substitution of grades ten and eleven.

Ethnic composition was defined as the percentage of Anglo, Black, and

Mexican-American students attending the school during the 1973-74 year. Only three ethnic groups were used since in all cases they represented at least 96 percent of the school population.

Socioeconomic status was defined in a previous R&E study of school attendance areas. Rankings were on a one-to-five scale, from lowest to highest.

Each of these criteria was weighted, achievement receiving greatest weight, ethnic composition next and socioeconomic getting less weight than the other variables.

After the preliminary clusters were formed, they were examined and modified in a meeting with the Assistant Superintendent of Elementary Operations, the Assistant Superintendent of Secondary Operations, and the Director of Program Services and Planning.

At least one school was selected from each cluster, with two schools being selected from those clusters containing ten or more schools. The schools included in the sample are shown in the following table.

Sample of Schools for Curriculum Study

Elementary Schools	Junior High Schools	High Schools
John F. Peeler (1-7)	E. B. Comstock (7-9)	Seagoville (7-9)
E. L. DeGolyer (1-7)	Thomas J. Rusk (7-9)	Lincoln (9)
James W. Fannin (1-6)	Sarah Zumwalt (7-9)	
Lisbon (1-6)	Fred F. Florence (7-9)	
City Park (1-4)	R. T. Hill (7-9)	
James Bowie (1-6)	W. E. Greiner (7-9)	
J. W. Ray (1-3)	William H. Atwell (7-9)	
Central (5-6)	J. L. Long (8-9)	
N. W. Harllee (1-6)		
Stephen C. Foster (1-6)		
Thomas L. Marsalis (1-6)		
Leslie A. Stemmons (1-6)		
Annie W. Blanton (1-6)		
Obadiah Knight (1-6)		
Urban Park (1-6)		
H. S. Thompson (1-4)		
William M. Anderson (1-6)		
Edna Rowe (1-7)		
Harry C. Withers (1-7)		

In each of the sample schools all teachers (N=376) who taught any of the first through ninth grades in mathematics received survey instruments corresponding to grade and subject area taught.

Evaluation Design: It was decided that to obtain input from a large number of teachers the best procedure was to conduct a mail-out survey using the District's mail delivery system. It was necessary to develop a survey instrument to obtain maximum input while using a minimum of teacher time. This necessitated a number of interviews with administrators and teachers to obtain the information desired for developing the first trial instrument. The instrument was then put through a series of design tests in several schools in the District. A final survey instrument was developed for each grade, 1-9. The intent of the questions asked of each teacher was identical across grade level; only the materials and content areas referred to by the questions differed. The survey was conducted during the month of April.

The primary limitation of this study was that the sample of teachers was not randomly selected from the total population. The schools were chosen randomly; then all mathematics teachers from grades 1-9 were placed in the sample. The implication of this limitation is that the reader must exercise caution when interpreting the results and generalizing them to the entire teacher population of mathematics teachers in grades 1-9.

Evaluation Results: The results of this study are presented with the full understanding that there is no such thing as "the" mathematics curriculum for the DISD. A great deal of altering and customizing of curriculum occurs within each classroom. Within the sampling limitations previously described, the responses categorized and summarized herein reflect a cross-section of attitudes toward District-provided textbooks and curricular materials. It is quite possible that some special programs were not included in this study.

Respondents generally reported favorable opinions toward the commonly used mathematics textbooks. One concern consistently reported, however, was the lack of sufficient quantity or quality of materials to teach below-average students.

Survey instruments received from first-grade mathematics teachers in the sample revealed that the only adopted first-grade math textbook, Elementary School Mathematics, 2nd Ed., was available in sufficient quantity, appropriate for all students, at least those average-and-above, used 3-5 days per week, and good-to-fair in quality. Several respondents reported that the textbook was too difficult for below-average students and that more drill exercises were needed. The special programs most often used by first-grade math teachers were Science Research Associates (SRA) and Multiage Math Modules.

The three materials rated as essential by respondents (workbooks, hundred-facts sheets, counting objects) were also generally available and of good quality.

Survey instruments received from second-grade math teachers indicated that they generally perceived the one adopted textbook, Elementary School Mathematics, 2nd Ed., to be available in sufficient quantity, appropriate for all students, at least average-and-above, used 3-5 days per week, and fair-to-excellent in quality. The second-grade respondents also expressed the need for more practice exercises and units on money and time-telling. The most often mentioned special program used by respondents was Science Research Associates (SRA). The only material rated as essential to the curriculum was workbooks, which were generally not available to respondents in sufficient quantity but were considered to be excellent in quality.

The math teachers at the third-grade level had one textbook available to them, Elementary School Mathematics, 2nd Ed., which respondents rated as available in sufficient quantity, appropriate for average-to-better students, used 3-5 days per week, and good-to-excellent in quality. The only prepared program which was used to any great extent was SRA materials. The materials which were considered essential to the curriculum by most respondents were kits and dittos, both of which were unavailable in sufficient quantity.

Responses received from fourth-grade math teachers suggested that the most widely used and favored of the five adopted textbooks were Continuing With Mathematics and Exploring Elementary Mathematics. Both were reported as available in sufficient quantity, and the majority of the chapters in each were taught by respondents. The least utilized text was Sets and Numbers although chapters on multiplication, division, and fractions were reported as being used. The most often mentioned special programs used were SRA materials, Southwest Regional Laboratories (SWRL), and Direct Instructional Systems for Teaching Arithmetic Remediation (DISTAR). Comments were made by several teachers about the need for more drill exercises on basics and about the overemphasis upon geometry in the textbooks. All materials were rated as supplementary, generally available, and good in quality.

Fifth-grade math teacher-respondents reported that two of the five adopted texts for fifth-grade math were more commonly used. These were Exploring Elementary Mathematics and Thinking with Mathematics. There was disagreement among respondents as to the availability of these two texts. Thinking with Mathematics seemed to be more appropriate for students of lower ability. Both were rated as generally good in quality, and all chapters in both were taught by the majority of the respondents. The two most commonly used special programs were Individualized Mathematics Drill and Practice Kit, and SRA materials. The only notable comment was that there were not enough materials for basic drill. The only essential material indicated was hundred-facts sheets, which were sufficiently available and of good quality.

For sixth-grade mathematics, five textbooks were adopted, of which two, Exploring Elementary Mathematics, 6 and Improving with Mathematics 6, were most commonly used. Both books were seen as appropriate for a wide range of student ability and reasonably good in quality. Opinion was divided over the availability of these books. The most often mentioned special programs used in respondents' classrooms were Individualized Mathematics Drill and Practice Kit and SWRL materials.

The responses received from seventh-grade math teachers revealed that of the three texts adopted for seventh-grade math, Modern School Math, Structure and Use, 7 was the most widely used. Respondents' opinions of the book generally seemed favorable. All of this book was taught by the majority of respondents, with the exception of chapters on flow charts, statistics, and statements. Several teacher-respondents reported developing special units for teaching the metric system, and consumer related math. The only material rated as essential was dittos. They were also considered to be available in sufficient quantity and of good quality.

The eighth-grade respondents reported that the most widely used and favored textbook of three which were adopted was Modern School Math, Structure and Use, 8. This book was also available and generally appropriate for average students. It was taught in its entirety by the majority of the teacher-respondents. Many teachers reported that the adopted text, Success with Mathematics, was unsatifactory for use in the classroom. The Spectrum Math Series Workbooks published by Laidlaw were mentioned several times as being used as an integral part of the regular curriculum. The two special programs reported as most often used were Motion Geometry and SRA materials. None of the materials listed in the instrument were rated as essential, but there were many insufficiencies revealed among the supplementary materials.

At the ninth-grade level, respondents indicated that the most often used textbook of the four general math texts was Mathematics, Modern Concepts and Skills, 3. This book was generally available, appropriate for below-average students, and fair in quality. For beginning Algebra, two of the four adopted books were apparently used, Introductory Algebra, Book 1, and Algebra, 2nd Ed. Both of these algebra books were available and of good quality. The adopted text, Mathematics, Modern Concepts and Skills, 3 was reported as unsatisfactory. Several respondents apparently felt it necessary to develop extra units on basis skills and fractions.

Since television is used at all grade levels, responses toward this media were summarized across all grades. In the primary grades (1-3), mathematics respondents perceived television as supplementary, insufficient in availability, and fair in quality. In the elementary grades (4-6), respondents generally rated television as supplementary, sufficient in availability and of good quality. The junior high math respondents considered TV as never used, insufficient in availability, and fair in quality.

Responses were also summarized for films across all grade levels, since they seemed to be used fairly consistently throughout the grade levels surveyed. In the primary grades, math films were reported as being used as supplementary material; they were available in insufficient quantity, and they were good in quality. The elementary-level respondents (4-6) also rated films as supplementary. They were considered generally available at this level and good in quality. At the junior high level, they were supplementary, available in insufficient quantity and of fair quality.

Mathematics teachers at the primary level generally agreed that workbooks and hundred-facts sheets were essential parts of the curriculum. Workbooks were also insufficient in quantity and good in quality. Hundred-facts sheets were generally available in sufficient quantity and good in quality.

At the elementary and junior high levels, there was no agreement across grade level as to the materials considered essential, therefore no conclusions could be drawn which would be consistently applicable either to elementary or junior high levels.

Additional Information:

75-567 System-wide Curriculum Assessment 1974-75: Science, 1975, William T. Denton, Cathy Birkelbach, 81 pages.

75-566 System-wide Curriculum Assessment 1974-75: Mathematics, 1975, William T. Denton, Cathy Birkelbach, 95 pages.

75-565 System-wide Curriculum Assessment 1974-75: Social Studies, 1974, William T. Denton, Cathy Birkelbach, 82 pages.

75-564 System-wide Curriculum Assessment 1974-75: Language Arts, 1975, William T. Denton, Cathy Birkelbach, 133 pages.

Abstract

System-wide Curriculum
Assessment 1974-75: Social Studies

Evaluators: William T. Denton and Cathy Birkelbach

Purpose of the Evaluation: This study is part of a coordinated series of system-wide studies designed by the Department of Research, Evaluation, and Information Systems (R&E) to evaluate various priority areas of the Dallas Independent School District (DISD). The purpose of this study was to assess teacher perceptions and attitudes toward social studies materials provided by the District. It also sought to determine what other social studies materials were being used besides those provided by the central office.

The goals for the study were to determine:

- The extent to which textbooks were used.
- The availability of textbooks.
- Ability level for which textbooks were appropriate.
- Number of days per week the various textbooks were used.
- The quality of the textbooks.
- Chapters and/or units within each textbook actually taught.
- Other prepared programs used in the classrooms.
- Supplementary books used as texts.
- Use, availability and quality of curricular materials such as workbooks, films, etc.
- Content areas or units not adequately covered by the textbooks for which teachers created units.
- Student ability levels for which materials were not available either in sufficient quantity or quality.

The information obtained from this study was reported to the District's Executive Team and Board of Education for their use in shaping strategies for restructuring the present social studies curriculum.

Sample: The sample of schools for the Curriculum Study was randomly selected from school clusters. The clusters were formed based on three criteria: achievement, ethnic composition, and socioeconomic status.

Achievement was defined as student performance on national tests as reported in Management Profiles 1973-74. For elementary schools, averages of z-scores for grades two and four were weighted and added to make a combined score. The process was similar for junior high schools, except that grades seven, eight, and nine were used. The same process was repeated for senior high schools with the substitution of grades ten and eleven.

Ethnic composition was defined as the percentage of Anglo, black, and Mexican-American students attending the school during the 1973-74 year. Only three ethnic groups were used since in all cases they represented at least 96 percent of the school population.

Socioeconomic status had been defined in previous R&E study of school attendance areas. Rankings were on a one-to-five scale, from lowest to highest.

Each of these criteria was weighted, achievement receiving the greatest weight, ethnic composition next, and socioeconomic getting less weight than the other variables.

After the preliminary clusters were formed, they were examined and modified in a meeting with the Assistant Superintendent of Elementary Operations, the Assistant Superintendent of Secondary Operations, and the Director of Program Services and Planning.

At least one school was selected from each cluster, with two schools being selected from those clusters containing ten or more schools. The schools included in the sample are shown in the following table.

Sample of Schools for Curriculum Study

Elementary Schools	Junior High Schools	High Schools
John F. Peeler (1-7)	E. B. Comstock (7-9)	Seagoville (7-9)
E. L. DeGolyer (1-7)	Thomas J. Rusk (7-9)	Lincoln (9)
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Stephen C. Foster (1-6)		
Thomas L. Marsalis (1-6)		
Leslie A. Stemmons (1-6)		
Annie W. Blanton (1-6)		
Obadiah Knight (1-6)		
Urban Park (1-6)		
H. S. Thompson (1-4)		
William M. Anderson (1-6)		
Edna Rowe (1-7)		
Harry C. Withers (1-7)		

In each of the sample schools all teachers (N=372) who taught any of the first through ninth grades in social studies received survey instruments corresponding to grade and subject area taught.

Evaluation Design: It was decided that to obtain input from a large number of teachers, the best procedure was to conduct a mail-out survey using the District's mail delivery system. It was necessary to develop a survey instrument to obtain maximum input while using a minimum of teacher time. This necessitated a number of interviews with administrators and teachers to obtain the information desired for developing the first trial instrument. The instrument was then put through a series of design tests in several schools in the District. A final survey instrument was developed for each grade, 1-9. The intent of the questions asked each teacher was identical across grade level; only the materials and content areas referred to by the questions differed. The survey was conducted during the month of April.

The primary limitation of this study was that the sample of teachers was not randomly selected from the total population. The schools were chosen randomly, and then all social studies teachers from grades 1-9 were placed in the sample. The implication of this limitation is that the reader must exercise caution when interpreting the results and generalizing them to the entire teacher population of social studies teachers in grades 1-9.

Evaluation Results: The results of this study reflect the portions of the DISD curriculum which teachers in sample schools reported as being most commonly used. The reader must understand that as a consequence compiling and generalizing the information obtained, the curriculum presented in this report represents a cross-section of the curriculum used throughout the District, but in no way touches upon all materials, programs, and books used by all teachers.

One area of major concern was expressed by a large number of teachers at each grade level. This was the fact that teachers did not have a sufficient quantity or quality of materials needed to teach below-average students.

The responses received from first-grade social studies teachers indicated that of the three textbooks adopted by the District, The Social Sciences was most often used by respondents, although all three were viewed as of good quality. The textbooks were reported as lacking in the subject areas of Indians, Texas, and Holidays. These areas were supplemented by several teachers with teacher-created units. The special programs often used by respondents were: (a) Multiage Social Studies Modules, (b) Multi-Ethnic Social Studies, and (c) Bilingual Social Studies. The materials for first-grade social studies which were viewed as essential were charts and films. These were also reported as available in sufficient quantity and good in quality. There were many insufficiencies reported among supplementary materials, although most were rated as good in quality. Workbooks which were rated as supplementary were generally unavailable.

Of the three textbooks adopted by the District for second-grade social studies, The Social Sciences was viewed as the most often used by respondents and of good quality. It was also used in its entirety by the majority of respondents. The remaining two texts were used infrequently, if at all. Several teachers found it necessary to supplement the curriculum in the areas of Texas, Families, and Community Helpers, through the use of teacher-created units. The only special program used to any extent was Multi-Ethnic Social Studies. None of the materials listed on the instrument were thought to be essential, and only one of the supplementary materials was considered available in sufficient quantity.

Third-grade social studies respondents favored The Social Sciences, of the three adopted texts. It was also available in sufficient quantity, appropriate for average-to-above-average students, and varied in extent of use from occasionally to 3-5 days per week. The majority of chapters in The Social Sciences were covered by most respondents. In the comments section of the instrument several teachers contradicted the conclusion that The Social Sciences was good-to-excellent in quality by reporting it as unsatisfactory for use in the classroom. This is evidence of the wide range of opinions among respondents concerning textbooks. The special programs most often mentioned as part of the third-grade social studies curriculum were: (a) Career Education Social Studies, (b) Multi-Ethnic Social Studies, (c) Law in a Changing Society, and (d) Law in a New Land. Respondents' general opinion concerning materials was that the only essential materials were globes and phonograph records, of which globes were not available in sufficient quantity and records were not at all available. Both were rated as good in quality. There were many insufficiencies among supplementary materials, and several were not at all available. Most of the materials were rated as good in quality.

At the fourth-grade level, responses regarding both adopted texts were favorable. Both were appropriate for average-students-and-above, and both were used fairly frequently. The majority of chapters in The Social Sciences were covered by 70-80 percent of the respondents. The entire text, This Is Man, was covered by one-third to one-half of the respondents. Comments revealed that several teachers thought the text The Social Sciences was unsatisfactory and that map skills and career awareness were deficient areas in the texts. The special programs often used at fourth-grade level were reported to be: (a) Career Education Social Studies, (b) Multi-Ethnic Social Studies, (c) Law in a Changing Society, and (d) American Indian Studies. The materials considered essential by most respondents were maps, globes, and newspapers. Maps and globes were also available and of good quality. Newspapers were insufficient and fair. None of the supplementary materials were rated as available in sufficient quantity, and one-fourth of them were not at all available.

Three textbooks were adopted for fifth-grade social studies; People in America was the most favored. People in America and The Social Sciences were reported as used fairly often by most teachers. The Social Sciences seemed to be appropriate for a higher level of student ability than was People in America. Most chapters in all three adopted texts were reported as utilized by at least half of the respondents. The most often mentioned special programs were: (a) Career Education Social Studies, (b) Economic Education, (c) Law in a New Land, and (d) Multi-Ethnic Social Studies. The materials thought to be essential were maps, globes, and films. Maps and films were rated as sufficient and good, although globes were insufficient in availability and only fair in quality. Most of the supplementary materials were either available in insufficient quantity or not at all available.

Sixth-grade social studies teacher-respondents indicated that of the two textbooks adopted for that grade and subject area, The Social Sciences was principally used, although it was viewed by several respondents as somewhat inadequate. Additional textbooks mentioned as part of the curriculum were: (a) Your Old World Past (b) Inquiry into the Past, and (c) Living in the Old World. Teacher-made units used to supplement the curriculum were related to specific countries, map reading, and geography. The three materials considered essential by sixth-grade social studies teachers were maps, globes, and films, all of which were reported as available in sufficient quantity and of good quality. Most of the supplementary materials were again reported as insufficient in quantity.

Both of the textbooks adopted for seventh-grade social studies were used fairly extensively by respondents; they were of good quality and were appropriate for above-average students. Texas and Its History appeared to be the more available of the two texts. There were some comments among respondents concerning the problem of the high level of difficulty of Texas and Its History. Two textbooks, Texas Our Heritage (published by Steck and Vaughn) and New Geography of Texas (published by Noble and Noble) were additional books used by some teachers as a part of the curriculum. The prepared programs most used by seventh-grade respondents were: (a) Law in a Changing Society, (b) Multi-Ethnic Social Studies, and (c) Career Education Social Studies. Two essential materials were reported to be maps and films. They were both sufficient in quantity; maps were good in quality, and films were fair. Although most supplementary materials were rated as good in quality, most were insufficient in quantity.

For eighth-grade social studies, three books were adopted by the District; Foundations of Freedom, History to 1877 was the most favored and used.

All three texts were reported to be generally available and good in quality. Foundations of Freedom was reported as used in its entirety by most teacher-respondents. The first of the three-part series which constitute the book Civil Government, entitled Your Rights and Responsibilities was also extensively used. The topic of black studies was reported as lacking in the texts, and an additional book entitled The Free and the Brave (published by Rand McNally) was used by several respondents as a textbook. Data from the materials section of the instrument indicate that the two materials, maps and films, considered essential by most respondents were also rated as sufficient in quantity and of good quality. Most supplementary materials were insufficient in availability; supplementary workbooks were not at all available.

There were three textbooks adopted for ninth-grade social studies; Man's Cultural Heritage was reported as most commonly used. There was disagreement as to the quality of this textbook, although most agreed that it was appropriate for above-average students and available in sufficient quantity. This text was taught in its entirety by a majority of the respondents. The only material rated as essential to the ninth-grade social studies curriculum by respondents was films. They were generally viewed as available in sufficient quantity and of good quality.

Since films are used at all grade levels, responses toward this media were summarized across all grade levels. In the primary grades (1-3), social studies respondents reported films to be supplementary to the curriculum, sufficient in quantity, and good in quality. At the elementary level (4-6) films were perceived as essential, sufficient in quantity, and of good quality. Junior high social studies respondents (7-9) considered films as essential, sufficient in availability, and fair in quality.

Television was also summarized across grade levels, since it is fairly consistently used throughout all nine grades. It can be generalized that in the primary grades, respondents considered television as supplementary, insufficient in availability, and good in quality. Teacher-respondents at the elementary level (4-6) felt television was supplementary, insufficient in quantity, and of good quality. Television at the junior high level was perceived as supplementary to the curriculum, insufficient in availability, and fair in quality.

In the elementary grades, social studies respondents consistently reported two materials to be essential, maps and globes. Respondents teaching these three grade levels (4-6) collectively considered maps to be available in sufficient quantity and of good quality. Respondents reported that globes also were sufficient and good.

General conclusions were not drawn regarding essential materials in primary and junior high levels, since in these two groups there was no agreement between grade levels as to the degree of use in the classrooms.

Additional Information:

75-567 System-wide Curriculum Assessment 1974-75: Science, 1975, William T. Denton, Cathy Birkelbach, 81 pages.

75-566 System-wide Curriculum Assessment 1974-75: Mathematics, 1975, William T. Denton, Cathy Birkelbach, 95 pages.

75-565 System-wide Curriculum Assessment 1974-75: Social Studies, 1975, William T. Denton, Cathy Birkelbach, 82 pages.

75-564 System-wide Curriculum Assessment 1974-75: Language Arts, 1975, William T. Denton, Cathy Birkelbach, 133 pages.

Abstract

75-567

System-wide Curriculum Assessment 1974-75: Science

Evaluators: William T. Denton and Cathy Birkelbach

Purpose of the Evaluation: This study is part of a coordinated series of system-wide studies designed by Research, Evaluation, and Information Systems (R&E) to evaluate various priority areas of the Dallas Independent School District (DISD). The purpose of this study was to assess teacher perceptions and attitudes toward science materials provided by the District. It also sought to determine what other science materials were being used besides those provided by the central office.

The goals for the study were to determine:

- The extent to which textbooks were used.
- The availability of textbooks.
- Ability level for which textbooks were appropriate.
- Number of days per week the various textbooks were used.
- The quality of the textbooks.
- Chapters and/or units within each textbook actually taught.
- Other prepared programs used in the classrooms.
- Supplementary books used as texts.
- Use, availability and quality of curricular materials such as workbooks, films, etc.
- Content areas or units not adequately covered by the textbooks for which teachers created units.
- Student ability levels for which materials were not available either in sufficient quantity or quality.

The information obtained from this study was reported to the District's Executive Team and Board of Education for their use in shaping strategies for restructuring the present science curriculum.

Sample: The sample of schools for the Curriculum Study was randomly selected from school clusters.

The clusters were formed based on three criteria: achievement, ethnic composition, and socio-economic status.

Achievement was defined as student performance on national tests as reported in *Management Profiles 1973-74*. For elementary schools, the averages of z-scores for grades two and four were weighted and added to make a combined score. The process was similar for junior high schools, except that grades seven, eight, and nine were used. The same process was repeated for senior high schools, with the substitution of grades ten and eleven.

Ethnic composition was defined as the percentage of Anglo, black, and Mexican-American students attending the school during the 1973-74 year. Only three ethnic groups were used since in all cases they represented at least 96 percent of the school population.

Socioeconomic status had been defined in a previous R&E study of school attendance areas. Rankings were on a one-to-five scale, from lowest to highest. Each of these criteria was weighted, achievement receiving the greatest weight, ethnic composition next, and socioeconomic getting less weight than the other two variables.

After the preliminary clusters were formed, they were examined and modified in a meeting with the Assistant Superintendent of Elementary Operations, the Assistant Superintendent of Secondary Operations, and the Director of Program Services and Planning.

At least one school was selected from each cluster, with two schools being selected from those clusters containing ten or more schools. The schools included in the sample are shown in the following table.

Sample of Schools for Curriculum Study

Elementary Schools	Junior High Schools	High Schools
John F. Peeler (1-7)	E. B. Comstock (7-9)	Seagoville (7-9)
E. L. DeGolyer (1-7)	Thomas J. Rusk (7-9)	Lincoln (9)
James W. Fannin (1-6)	Sarah Zumwalt (7-9)	
Lisbon (1-6)	Fred F. Florence (7-9)	
City Park (1-4)	R. T. Hill (7-9)	
James Bowie (1-6)	W. E. Greiner (7-9)	
J. W. Ray (1-3)	William H. Atwell (7-9)	
Central (5-6)	J. L. Long (8-9)	
N. W. Harllee (1-6)		
Stephen C. Foster (1-6)		
Thomas L. Marsalis (1-6)		
Leslie A. Stemmons (1-6)		
Annie W. Blanton (1-6)		
Obadiah Knight (1-6)		
Urban Park (1-6)		
H. S. Thompson (1-4)		
William M. Anderson (1-6)		
Edna Rowe (1-7)		
Harry C. Withers (1-7)		

In each of the sample schools all teachers (N = 339) who taught any of the first through ninth grades in science received survey instruments corresponding to grade and subject area taught.

Evaluation Design: It was decided that to obtain input from a large number of teachers the best procedure was to conduct a mail-out survey using the District's mail delivery system. It was necessary to develop a survey instrument to obtain maximum input while using a minimum of teacher time. This necessitated a number of interviews with administrators and teachers to obtain the information desired for developing the first trial instrument. The instrument was then put through a series of design tests in several schools in the District. A final survey instrument was developed for each grade, 1-9. The intent of the questions asked each teacher was identical across grade level; only the materials and content areas referred to by the questions differed. The survey was conducted during the month of April.

The primary limitation of this study was that the sample of teachers was not randomly selected from the total population. The schools were chosen randomly, and then all science teachers from grades 1-9 were placed in the sample. The implication of this limitation is that the reader must exercise caution when interpreting the results and generalizing them to the entire teacher population of science teachers in grades 1-9.

Evaluation Results: The results of the curriculum study reflect the DISD Curriculum as viewed by teachers in sample schools. As a consequence of sampling and generalizing information obtained, the results show a cross-section of the curriculum, but in no way touch upon all materials, books, and resources utilized by all teachers.

One major concern which was expressed by many teachers across all grade levels was the fact that they lacked materials in sufficient quantity and of sufficient quality needed to adequately teach below-average students.

Responses received from first-grade science teachers revealed that they generally viewed the adopted textbook, Today's Basic Science, 1, as available in sufficient quantity, appropriate for all students, especially average students, varied in use, and good-to-fair in quality. The topics in this text covered by at least 50 percent of the respondents were: observing, seasons, and living things. The most commonly mentioned special program utilized was the multiage science module. Of the many teacher-made units being used to supplement the text, a few of those mentioned were covering topics of birds, weather, and animal homes. Nearly all materials listed on the instrument were considered supplementary by respondents. Eleven of the twelve supplementary materials were also rated as being not available in sufficient quantity or not available at all.

The second-grade teacher respondents rated the only adopted text, Today's Basic Science, 2, as available in sufficient quantity, varied in use among average, above-average, and all students, used occasionally, and fair-to-good in quality. The chapters used by the majority of teachers dealt with the scientist, seasons, plants, animals, and the senses. Today's Basic Science, 2 was reported as unsatisfactory by several teachers, the reason being its high level of difficulty. The program most often mentioned as being utilized for second-grade science was American Association for the Advancement of Science (AAAS). The majority of the materials listed on the instrument were rated as supplementary; only one of them was reported as being available in sufficient quantity.

Third-grade respondents generally perceived the adopted science text, Today's Basic Science, 3, as available in sufficient quantity, appropriate for average students, used occasionally to 3-5 days per week, and good in quality. Twenty-two teacher-made units were reported as being used to supplement the text. The units covered various topics including rocks and minerals, animals, and the solar system. Two categories of materials were reported as essential to the curriculum--charts and films. Charts were viewed as insufficient in availability and fair in quality. Films were reported as sufficient in quantity and good in quality.

Opinions about the four textbooks adopted for fourth-grade science varied among respondents as to the extent of use. All but Basic Health Science, D, were reported as generally available; all were considered appropriate for use with average to above-average students, and all were rated as good-to-excellent in quality. Thirteen different teacher-made units used to supplement the text were identified. They ranged in topics from drugs to the solar system. A special unit on drug abuse was reported as being used by several respondents. None of the materials listed was considered essential; but again, there were many insufficiencies reported for supplementary materials.

The fifth-grade teacher respondents reported that of the four textbooks adopted, Today's Basic Science, 5 was most often used, although all but Basic Health Science, E, were available in sufficient quantity. All were good-to-excellent in quality, and appropriateness varied widely among all texts. All of the text, Today's Basic Science, 5 was reported as covered at some time during the school year by a majority of the respondents. The only special program used to any extent by respondents was Drug Abuse. Films and experiment materials were reported as essential to the curriculum. Films were also considered to be sufficiently available and good in quality. Experiment materials were reported as insufficient in quantity and fair in quality. All of the materials rated as supplementary were either unavailable in sufficient quantity or totally unavailable. The majority of the materials were rated as good in quality.

For sixth-grade science, four textbooks were adopted. Today's Basic Science, 6 and Health for Living, the Healthful Living Program seemed to be the most commonly used as well as the most generally favored by respondents. All texts but Basic Health Science, F, were generally available and appropriateness varied widely among all texts. All chapters in Today's Basic Science, 6 were generally taught by respondents, with the exception of one concerning atomic power. Health for Living, the Healthful Living Program was also reported as being used in its entirety, with the exception of only a few chapters. The special program used most often by respondents was Drug Abuse. None of the materials listed on the instrument was rated as essential, and the majority of those rated as supplementary were either available in insufficient quantities or not at all available.

Seventh-grade science teacher respondents seemed to use the text Focus on Life Science, 7, First Edition more than any of the other five adopted texts. Focus on Life Science was also reported to be appropriate for average-to-above-average students, varied in availability, and good in quality. All chapters in this book were used by over half of the respondents, with the exception of a chapter on the biosphere. The other five adopted texts were reported as seldom used. The special program mentioned by several respondents as being used in their classrooms was Drug Abuse. None of the materials rated by respondents was considered essential, and most of the supplementary materials were rated as insufficient in availability.

A review of the data received from eighth-grade respondents indicated that the most commonly used of the six texts adopted were Focus on Earth Science, 8, Second Edition, and Exploring Earth Science, 8. Both texts were rated as good in quality and used from occasionally to 3-5 days per week. It appeared that approximately half the text, Exploring Earth Science, 8 was generally taught. Numerous books and teacher-made units were identified as being used to supplement the texts. Several respondents reported that they used the Intermediate Science Curriculum Study Materials. Eighth-grade respondents generally viewed films, dittos, and experiment materials as being essential to the teaching of eighth-grade science. All of these materials were also reported to be available in sufficient quantity and of good quality.

At the ninth-grade level, teachers seemed to have been relatively positive toward the three adopted textbooks. Twenty-three separate teacher-made units were reported used and ranged in category from alcoholism to superstitions to science research. An additional text, Physical Science - A Modern Approach was mentioned as used in addition to the adopted texts. Special programs used to supplement the textbook were drug abuse materials and intermediate Science Curriculum Study materials. Dittos and experiment materials were considered essential by the majority of the respondents; both were rated as available.

Since films were used at all grade levels, responses toward this media were summarized across all grade levels. In the primary grades (1-3), science respondents perceived films as supplementary, sufficiently available, and good in quality. In the elementary grades (4-6), films were generally rated as supplementary, sufficient in availability, and of good quality. The junior high respondents (7-9) reported films as supplementary, sufficiently available, and good quality. Across all grade levels, films were sufficiently available and of good quality.

Television appeared to be another material used across all grade levels; therefore, responses were again summarized for primary, elementary, and junior high levels. Perceptions of primary teacher-respondents (1-3) indicated that television was supplementary, insufficient in availability, and good in quality. Elementary respondents (4-6) felt television was supplementary, insufficiently available, and good in quality. At the junior high level, television was never used, insufficiently available, and of fair quality.

The general consensus at the junior high level was that dittos and experiment materials were essential to the curriculum. Dittos were also considered as available in sufficient quantity and good quality. Experiment materials were generally thought to be available in sufficient quantity and good at this level.

At the primary and elementary levels, general conclusions were not drawn regarding essential materials since there was no agreement between grade levels in these two groups as to the degree of use in the classrooms.

Additional Information:

75-567	System-wide Curriculum Assessment 1974-75: Science, 1975, William T. Denton, Cathy Birkelbach, 81 pages.
75-566	System-wide Curriculum Assessment 1974-75: Mathematics, 1975, William T. Denton, Cathy Birkelbach, 95 pages.
75-565	System-wide Curriculum Assessment 1974-75: Social Studies, 1975, William T. Denton, Cathy Birkelbach, 82 pages.
75-564	System-wide Curriculum Assessment 1974-75: Language Arts, 1975, William T. Denton, Cathy Birkelbach, 133 pages.

Abstract

System-wide Assessment 1974-75
Students and Educators

Evaluator: C. LaVor Lym

Purpose of the Evaluation: This study was part of a coordinated series of system-wide studies conducted during 1974-75 to evaluate various priority areas of the Dallas Independent School District (DISD). Specifically, its purpose was to determine the needs of the Dallas educational system in the areas of language arts, mathematics, science, and social studies. Data were obtained on the perceived importance of a wide range of learner skills within each curriculum area and the perceived attainment of those skills by DISD students. The results were intended to provide a focus for objective assessment of needs, particularly as related to criterion-referenced testing, and to yield a rationale for the development of curriculum and programs in the subject areas.

Sample: Information was sought for the following target populations: (a) all teachers comprising the Instructional Services support teams for mathematics, science, social studies, and language arts; (b) other professional personnel with a job title of counselor, curriculum writer, educational diagnostician, registrar, resource teacher, program facilitator, teacher-in-charge, resource administrator, principal, or assistant principal; and (c) all senior students. The survey of teachers involved all population elements; forms of the survey instrument, which varied according to subject area, were matched to the subject area of each teacher. Likewise all other professional personnel having the aforementioned job titles were considered as elements. In the case of students, a simple random sample was taken from the total population of approximately 7,100 seniors. For professional personnel (other than teachers) and students, a matrix sampling scheme was applied, where different forms of the instrument were randomly assigned to equal numbers of sample elements.

Evaluation Design: It was decided that to obtain input from such a large number of people the best procedure would be to conduct a mail survey using the intradistrict mail system. First, however, it was necessary to develop an instrument that would give a valid representation of the skills contained in each subject area, yet remain short enough in length to require a minimum amount of time in answering. The skills specified in the forms of the instrument for the various subject areas were derived from lists of goals and objectives appearing in the literature and were reviewed by personnel in the Instructional Services Department, administrative personnel in the Secondary Operations Division, and specialists in the subject areas who were in the Department of Research, Evaluation, and Information Systems.

A different form of the survey instrument was designed for each subject area and target population (yielding a total of 12 different forms). Names of forms were given according to population, that is, Teacher Questionnaire, Personnel Questionnaire, and Student Questionnaire. All consisted of three parts: a section for assessment of the instructional program for a given subject area, a section which called for subject areas to be ranked according to need for improvement, and a section which requested personal data. For a given subject area the contents of the first two sections were identical.

The following skills were specified in the assessment sections of the various questionnaires:

Mathematics	Science	Social Studies	Language Arts
Operations	Observation	Political science	Listening
Numbers and values	Numbers and measures	Physical geography	Speaking
Equations and word problems	Classification	Socioeconomic geography	Vocabulary
Geometry	Hypothesizing	Psychology and philosophy	Comprehension
Measurement	Experimentation	Economics	Critical evaluation
Sets	Generalization	Sociology and anthropology	Study and reference
Charts, graphs, and tables	Facts and terminology	History	Literature
Statistics and probability	Purpose	Citizenship	Writing
Interest and appreciation of mathematics	Scientific approach	Appreciation of social studies	Appreciation of language arts
	Interest and appreciation of science		

Ratings of importance and perceived attainment were requested for each of two subclasses of skills, those termed "basic" and those referred to as "higher-order." Basic skills were defined as those which should be possessed by any student leaving the system, whether as a graduate or a dropout. Higher-order skills, on the other hand, were defined as those requiring a higher level of cognition such as that which might be expected for entrance into college. Specific examples, but not a comprehensive list, were given for each subclass of skills.

Scaling of importance and attainment was based on relative numbers of students (1=none, 2=few, 3=some, 4=most, or 5=all) for whom the skill was viewed as important or by whom the skill should be attained. The rationale for such a scale was the anticipated use of the data in a total systems context; that is, the data were expected to be used to establish priorities for the development of programs and curricula on a District-wide basis within each subject area.

Questionnaires were mailed via the intradistrict mail system to professional personnel (other than teachers) on May 9, 1975, and to teachers on May 16, 1975. For the survey of senior students, questionnaires were aggregated by school and sent to each principal who was asked to coordinate their administration to students. June 6, 1975, was the cutoff date after which any questionnaires which were returned were not processed. By that date completed questionnaires had been received from all high schools; after that date very few additional questionnaires were received daily.

Evaluation Results: Except for skills in statistics and probability, all the skills in each subject area were considered to be important in an absolute sense by all of the target populations. That is not to say that statistics and probability should be excluded from the mathematics curriculum, but only that they are important for a fewer number of students than any of the other skills in mathematics specified in the survey instrument.

A need index, defined as the difference between the mean for importance and the corresponding mean for perceived attainment, was also computed for each skill. If a skill ranked one, two, or three (i.e., was in the upper one-third of the distribution of need indexes) and had a positive need index, then it was operationally defined as Type I. Those skills having negative need indexes were arbitrarily defined as Type II. Conceptually, Type I skills were those for which the existing educational system was viewed as undercommitted, and Type II skills were those for which the system was overcommitted. In this case, all the need indexes were positive for all of the skills, which indicated that the present educational system was not viewed as having overcommitted itself in any subject area. The following tables list the Type I skills and their need indexes.

MATHEMATICS, BASIC SKILLS

Teachers	Other Professional Personnel	Students
Interest and appreciation of mathematics (1.40)	Interest and appreciation of mathematics (1.38)	Interest and appreciation of mathematics (0.99)
Operations (addition, multiplication, etc.) (1.28)	Operations (addition, multiplication, etc.) (1.25)	Operations (addition, multiplication, etc.) (0.90)
Equations and word problems (1.23)	Numeration (1.18)	Numeration (0.82)

MATHEMATICS, HIGHER-ORDER SKILLS

Teachers	Other Professional Personnel	Students
Interest and appreciation of mathematics (0.98)	Interest and appreciation of mathematics (0.89)	Measurement (0.85)
Measurement (0.89)	Operations (addition, multiplication, etc.) (0.77)	Interest and appreciation of mathematics (0.77)
Equations and word problems (0.75)	Measurement (0.66)	Charts, graphs, and tables)0.70)

SCIENCE, BASIC SKILLS

Teachers	Other Professional Personnel	Students
Measurement in science (1.18)	Scientific approach (1.24)	Measurement in science (0.96)
Interest and appreciation of science (1.13)	Interest and appreciation of science (1.23)	Scientific approach (0.92)
Scientific approach (1.09)	Hypothesis formulation (1.19)	Interest and appreciation of science (0.87)

SCIENCE, HIGHER-ORDER SKILLS

Teachers	Other Professional Personnel	Students
Interest and appreciation of science (1.23)	Interest and appreciation of science (1.23)	Interest and appreciation of science (1.06)
Measurement in science (1.02)	Hypothesis formulation (1.09)	Measurement in science (0.91)
Hypothesis formulation (1.00)	Scientific approach (0.99)	Hypothesis formulation (0.88)

SOCIAL STUDIES, BASIC SKILLS

Teachers	Other Professional Personnel	Students
Economics (1.69)	Psychology and philosophy (1.87)	Economics (1.31)
Citizenship (1.59)	Economics (1.80)	Citizenship (1.25)
Political science (1.59)	Sociology and anthropology (1.65)	Political science (1.25)

SOCIAL STUDIES, HIGHER-ORDER SKILLS

Teachers	Other Professional Personnel	Students
Citizenship (1.31)	Sociology and anthropology (1.51)	Economics (1.28)
Socioeconomic geography (1.27)	Political science (1.39)	Citizenship (1.11)
Economics (1.24)	Citizenship (1.34)	Sociology and anthropology (1.07)

LANGUAGE ARTS, BASIC SKILLS

Teachers	Other Professional Personnel	Students
Comprehension (1.62)	Critical evaluation (1.89)	Critical evaluation (1.26)
Listening (1.53)	Listening (1.71)	Listening (1.15)
Critical evaluation (1.53)	Comprehension (1.64)	Comprehension (1.11)

LANGUAGE ARTS, HIGHER-ORDER SKILLS

Teachers	Other Professional Personnel	Students
Speaking (1.50)	Critical evaluation (1.64)	Vocabulary (1.28)
Listening (1.42)	Listening (1.58)	Speaking (1.21)
Interest and appreciation of language arts (1.33)	Comprehension (1.47)	Critical evaluation (1.13)

Respondents to the survey instrument also ranked subject areas according to need for improvement. A rank of one was given to the subject area having the greatest need for improvement, and so on until a rank of four was assigned to the area having the least need for improvement. Analysis of the data showed that subject areas remained in the same serial order for each population when ranked by scale values of model discrimination. That order was language arts, mathematics, social studies, and science. Further, the magnitude of the distance between the distributions for language arts and mathematics was greater than the distance between any other two adjacent distributions. Thus in comparison to other subject areas, language arts was clearly viewed by all groups as having the greatest need for improvement.

Several explanations may be posited for the findings related to comparison of subject areas. First, the findings may reflect a recent national sentiment for a "return to the basics." The educational public seems to have suddenly become alarmed about the performance of students on standardized achievement tests. Many question the efficacy of social promotion, claiming that too many graduates of the educational system are unable to read or perform arithmetic operations at a functional level. Refocusing upon fundamental skills of communication (reading, speaking, and writing) and mathematics is seen as the solution to these problems, and much has been written in expression of that opinion.

Also particular emphasis has been given by the DISD to the areas of reading and mathematics. Targeted programs for disadvantaged students have been implemented for both areas. Furthermore, a large effort has been undertaken to develop criterion-referenced tests, first in reading and then in mathematics, while no such test development has proceeded in the other subject areas. The overt emphasis which has been placed on these subject areas may very well have been an important factor which acted to influence responses to the needs assessment questionnaire.

Examination of test data collected under the Basic Comprehensive Group Testing Program indicated that a much greater need exists in the area of science than was expressed in the needs-assessment questionnaire. Scores of senior-high students in reading, language arts, mathematics, and social studies typically were in the fourth decile for large-city norms, while those in science did not exceed the 25th percentile. Lack of knowledge of the test results is one explanation of the discrepancy between subjective and objective data. Another explanation is that, despite knowledge of test results, all populations perceived science as relatively less important and hence as having the least need for improvement.

Additional Information:

75-562 System-wide Assessment 1974-75: Students and Educators, 1975, C. LaVor Lym, 45 pages.

Abstract

School Input Indices 1976-77

Evaluator: Wayne R. Applebaum

Each year the Dallas Independent School District (DISD) inputs money, material, and services into the schools of the District. The ultimate goal being to provide a quality education in each school. The primary objective of this study is to determine what kinds of inputs are being made and how they are distributed among the schools.

This study is concerned with inputs made in four major areas:

1. Per Pupil Expenditure
2. School Environment
3. Library Facilities, Policies, and Procedures
4. Teacher Characteristics

Per pupil expenditure was concerned with the amount of money spent on the campus level. The per pupil expenditures included only money spent on administration and instruction. It did not include money spent on central administration and support services.

School environment refers to the characteristics of the school including the physical plant, special courses, and extracurricular activities.

Under the library portion of this study the amount of audiovisual facilities was of prime concern. The amount of audiovisual material in each was compared to standards recommended by the American School Librarians Association (ALA). In addition, policies and practices in the administration of library and media facilities were compared to the ALA standards.

The teacher characteristics studied were sex, ethnicity, years of experience, highest degree earned, and bilingual ability. In addition, the student teacher ratios of each subdistrict are presented.

This study included all schools in the District with the exception of what may be called special purpose schools. Such schools include the Magnet High School, William Carroll Special Education Center and, Buckner Home Academy. These schools were designed to meet the needs of a specific group of students and it would therefore be inappropriate to compare them to schools in the District which have the purpose of educating a more diverse population. Schools which housed vanguards and academies as a school within a school were included.

Per Pupil Expenditures

The Dallas Independent School District's budget for the 1976-77 school year was in excess of 170 million dollars. This amount accounts for every budget item from teachers' salaries to the payment of interest on school bonds. The purpose of this section is to study on a per-pupil basis the distribution of that portion of the budget which comes under the heading of campus operations.

Methodology: The per pupil expenditure presented in this study included money received from two sources: District funds, Fund 117, or the school operations budget; and Federal funds, ESAA and Title I.

Results: Table 1 displays the per-pupil expenditure by subdistrict along with the errors in the enrollment projection. The error in the enrollment projection arises from the fact that for a given school year budget planning and approval must be completed during spring and summer of the preceding school year. Therefore, an estimate of the number of students who will be enrolled in each school in the fall must be made. Errors in this estimate would cause differences in the per-pupil expenditure. The error in enrollment column of Table 1 indicates the difference between the projected enrollment, upon which the budget was based, and the actual enrollment (Projected Enrollment - Actual Enrollment). A positive value indicates that fewer students were enrolled in the school than were expected. The greater the positive value of the error the greater the per-pupil expenditure (District funds) should be. The range of per-pupil expenditure for high, middle, and elementary schools is about 80, 102, and 84 dollars, respectively. However, Table 2 indicates the range of projected per-pupil expenditures is somewhat smaller (about 50, 39, and 27 dollars). The figures in Table 2 were calculated by dividing the amount of money spent by the projected enrollment rather than the actual enrollment.

Another factor which effects the per-pupil expenditure of a given school is its size. Certain expenditures of a school remain relatively constant even though their populations may vary. One example of this is the principal's salary. If a school has 100 students, then each pupil must bear .01 of a principal's salary. If the school has 500 students, then each student must bear only .002 of the principal's salary. If a principal's salary is 18,000 dollars per year, then this represents a difference in per-pupil expenditure (all other things being equal) of 144 dollars. Similarly, other factors such as salaries of librarians, secretaries, and clerks may have a similar effect. The correlation between the actual school population and the per-pupil expenditure was -.50, -.62, and -.60 for high, middle, and elementary schools, respectively. This indicates that a moderately negative relationship between the size of the school population and the size of the per-pupil expenditure. As the population of the school increases the per-pupil expenditure decreases.

Table 1

Per Pupil Expenditure by Subdistrict

	District Funds[1]	ESAA/TITLE I	Total	Error in Enrollment Projection[2]
High School				
Northwest	746.07	12.42	758.49	+753
Northeast	666.49	5.66	672.15	+ 65
Southeast	706.34	83.17	789.51	- 10
Southwest	698.89	3.49	702.38	+163
East Oak Cliff[3]	701.53	0.00	701.53	+434
Middle School				
Northwest	788.09	35.89	823.98	+529
Northeast	748.79	39.98	788.77	+358
Southeast	754.11	38.33	792.44	+353
Southwest	744.42	44.89	789.32	+179
East Oak Cliff[3]	686.18	51.17	737.35	+ 59
Elementary Schools				
Northwest	691.49	149.79	841.28	+1208
Northeast	668.84	97.61	766.45	+721.5
Southeast	649.52	115.32	764.84	+353
Southwest	607.62	52.07	659.69	-623.5
East Oak Cliff[3]	641.86	132.66	774.52	+617.5

[1] Fund 117

[2] (Projected-Actual)

[3] A significant amount of District funds not included under Fund 117 are allocated to the East Oak Cliff Subdistrict. These funds would increase the per-pupil expenditures in this subdistrict.

Table 2

Per Pupil Expenditures of District Funds by Subdistrict had Enrollment Projections Held

High Schools	Per Pupil Expenditure
Northwest	691.70
Northeast	661.95
Southeast	707.54
Southwest	684.61
East Oak Cliff	658.03
Middle Schools	
Northwest	715.66
Northeast	681.71
Southeast	695.73
Southwest	716.61
East Oak Cliff	677.85
Elementary Schools	
Northwest	644.02
Northeast	636.84
Southeast	629.30
Southwest	632.66
East Oak Cliff	617.22

Table 3 indicates the projected per-pupil cost of administrative staff salaries. When these costs were subtracted from the per-pupil expenditures the adjusted per-pupil expenditures in Table 3 were obtained. The range of adjusted per-pupil expenditures for high, middle,and elementary schools were approximately 36, 28, and 6 dollars. Further reconciliation may be made by making similar adjustments based on other constant areas of expenditure. Table 4 summarizes the changes in the range of per-pupil expenditures.

It may therefore be concluded that inequities in District per-pupil expenditures have arisen from two primary sources, errors in enrollment projections and size of school. When these sources of variation were corrected for, the range of per pupil expenditures decreased.

School Environment

The school environment is a multifacted area. It includes: the types of classes offered by a school, the ability of a school to care for students with special skills or problems, the area of the physical plant site, and the variety extracurricular activities. The purpose of this section is to describe the environment offered by the schools of the District.

Methodology: In order to ascertain the school environment, a 45-item Elementary School Facility Survey (ESFS) was sent to each elementary school principal in the District, and 73-item High School and Middle School Facility Survey (HSMSFS) was sent to each middle- and high school principal in the District. The 45 items on the ESFS were identical to items on the HSMSFS. The additional items on the HSMSFS were determined to be irrelevent for elementary schools. Such items included questions on dropout rates, career education, and laboratory science.

Results: In order to see if there was any difference between subdistricts a rank order was established in each of the categories. A rank of one was given to the subdistrict with the "best" score in the category and five to the subdistrict with the "worst" score. In event of a tie the ranks of the tied subdistricts were summed and divided by the number of subdistricts tied. The mean rank order was calculated for each subdistrict for the purpose of comparison. The reader should be warned that although these comparisons may provide useful summary information no attempt was made to weight the categories by their importance. In addition, as is the nature of rank orders, these rank orders have ignored the size of the differences between category means. Therefore, interpretation of the mean rank orders must be made in light of these constraints.

Table 3

Contribution to Projected Per Pupil Expenditure by Salaries of Administrative Staff

	Subdistrict	Projected Per Pupil Cost of Administrative Staff	Adjusted Per Pupil Expenditure[1]
High Schools	Northwest	78.19	613.51
	Northeast	66.02	595.93
	Southeast	77.80	629.74
	Southwest	77.62	606.99
	East Oak Cliff	64.21	593.82
Middle Schools	Northwest	101.05	614.61
	Northeast	79.06	602.65
	Southeast	82.84	612.89
	Southwest	88.98	627.63
	East Oak Cliff	78.22	599.63
Elementary Schools	Northwest	69.44	574.58
	Northeast	62.20	574.64
	Southeast	56.84	572.46
	Southwest	63.27	569.39
	East Oak Cliff	49.04	568.18

[1] (Projected Per Pupil Expenditure — Per Pupil Cost of Administrative Staff)

Table 4

Range of Per-Pupil Expenditures (PPE) of District Funds

	Actual P.P.E.	Projected P.P.E.	Projected P.P.E. Adjusted by Administrator's Salaries
High School	80	50	36
Middle School	102	39	28
Elementary School	84	27	6

Table 5 presents the mean rank orders. Recall that the lower ranks were given to subdistricts which were "better" than others. For high schools, the Northwest and Northeast Subdistricts had the best (lowest) rank order means. However, they differed .8 from the rank order mean of the Southwest Subdistrict which was the highest. This would indicate that a fairly close grouping exists among subdistrict high schools. The means also are indicative of the fact that subdistricts have different strengths and weaknesses. That is, a subdistrict may have the best score in one category but the worst in another.

Table 5

Mean Environment Rank Orders by Subdistrict

	High School	Middle School	Elementary School
Northwest	2.7	2.9	3.3
Northeast	2.7	2.3	3.6
Southeast	3.0	3.3	2.8
Southwest	3.5	3.0	2.8
East Oak Cliff	3.1	3.5	2.5

Somewhat larger differences were found among the subdistricts in the mean rank orders of the middle schools. The Northeast Subdistrict, which had the lowest rank order mean was 1.2 less than East Oak Cliff which had the highest mean. This indicates that on the average the Northeast Subdistrict was more than one full rank better than the East Oak Cliff Subdistrict. The Northwest Subdistrict's mean was .6 points less than the next subdistrict, the Northeast. The differences between any of the subdistricts, excluding the Northeast, was .6 or less.

The elementary schools of the East Oak Cliff Subdistrict had the best rank order mean. It was .5 less than the mean of the next closest subdistrict (Southeast, and Southwest). It was 1.1 points less than the Northeast Subdistrict.

In general, the subdistricts' rank orders' means had a range of less than one rank. This indicates two things.

1) The subdistricts are fairly equal in terms of school environment.
2) The subdistricts vary as to their strengths and weaknesses with one not being consistently better than the others.

In addition, it should be noted that no one subdistrict was consistently the best or the worst across the three types of schools considered.

Library Facilities, Policies and Procedures

Two major areas were considered in the evaluation of the District's libraries, audiovisual facilities, and the libraries' operational policies and procedures. Both of these areas were evaluated with respect to the criteria established in Media Programs (1975) published jointly by the American Association of School Librarians (ALA) and the Association for Educational Communications and Technology. In interpreting the results the following cautions are necessary.

1. The national Standards do not represent inflexible rules. It is a set of recommendations. It is the responsibility to each district to determine how to apply them as guidelines.

2. The results collected in the audiovisual portion of this survey are quantitative not qualitative. As such assessments were not made as to the condition of the equipment. The reader should be aware that the numbers presented represented both new and old equipment. Some of the equipment may be of limited serviceability and in need of replacement.

The methods and results, of the studies, of the two areas will be presented separately.

Audiovisual Equipment: The data for this study was obtained from an inventory of audiovisual materials conducted by the Media Services Department. This information is current as of October, 1976.

Table 6 displays the percentage of high, middle, and elementary schools which achieved the criterion in various areas. The category which was the strongest was transparency makers. Nearly every school in the District has this piece of equipment. The Middle and Elementary schools all met criterion in audio equipment category. These were the only areas in which all the schools of a given type met the criterion, although a high percentage of schools met the criterion in some areas.

Among all types of schools the strongest area was audio equipment. The overall mean was 115.57 percent of criterion in high schools and 217.40 and 322.02 percent of criterion in middle and elementary schools, respectively. The lowest mean in the audio category was observed in East Oak Cliff High Schools (80.00).

Table 6

Percentage of Schools Achieving
Audiovisual Equipment Criterion

	High Schools	Middle Schools	Elementary Schools
Audio Equipment	58	100	100
Video Recorders	32	25	8
Transparency Makers	100	100	98
Visual Image	5	35	55
Filmstrip Projectors	0	0	7
Filmstrip Viewers	0	0	0
Overhead Projectors	42	90	76
Opaque Projectors	15	30	61
Slide Projectors	0	5	5
Screens	0	25	29
Projection Carts	0	0	2
Splicers	79	70	5
Listening Centers	0	5	46

The weakest area was filmstrip viewers. None of the subdistricts had a mean of greater than ten percent of criteria in this category. The schools in the District also appear to be far short of the criterion in the areas of slide and filmstrip projectors.

In conclusion, there appears to be a wide variance in the percentage of the criterion achieved in each area. The District should determine how realistic the ALA standards are in relation to its own media goals. In addition, it would seem that based on the ALA standards the District's media program is very strong in certain areas while weak in others. If the ALA standards are to be followed then it would appear that a change in purchasing policy should be made in order to strengthen the weaker areas.

Policies and Procedures: The ALA states Media Programs guidelines as to the administration of a media program. This includes recommendations as to how library scheduling should be handled and how media equipment should be distributed. Again, it should be noted that the guidelines stated in this publication are recommendations and there may be some debate as to their appropriateness in any given instance.

Methodology: The information on library policies and procedures was gathered via questionnaire from librarians in each school in the DISD. The questionnaire dealt with ten areas of library policies. These are as follows (the key words given in parentheses will be used to refer to the question in later portions of this section).

1. Does each class have a fixed period during which it goes to the library? (Fixed Period)

2. Can a teacher send small groups of students to the library while she attends to the rest of the class? (Small Groups)

3. Is the library used as a study hall? (Study Hall)

4. Can a teacher schedule time for his/her class (in addition to any regularly scheduled time)? (Scheduling)

5. Is the library available outside of regular school hours? (Hours)

6. In what manner are "general use resources" such as movie projectors, tape records, television sets, etc. allocated? (Resource Allocation)

7. Is a given person responsible for equipment maintenance? (Equipment Maintenance)

8. Is there a regular program for preventative maintenance of media equipment? (Preventative Maintenance)

9. Is there a formal program through which students are informed of what library and media facilities are available and how to access them? (Student Information)

10. Is there a formal program to inform teachers what library and media facilities are available and how to access them? (Teacher Information)

The responses to these questions were summarized and are discussed for the District as a whole.

Results: Tables 7-9 present the percentage of respondents who responded "yes" to each question. The exception to this was the question on the allocation of general use materials. The percentages presented for this question reflect those who responded that resources are allocated to specific teachers (specific teachers) and those who responded that resources were housed in a central location (centralized). The remaining respondents (not listed) indicated that they used some mixture of the two procedures.

Does each class have a fixed period during which it goes to the library?

The ALA standards stated that classes should not have fixed periods for library but should be able to utilize the library as it is needed. None of the high schools, 9.5 percent of the middle schools, and 83.1 percent of the elementary schools followed the practice of having fixed periods.

Can a teacher send small groups of children to the library while he/she attends to the rest of the class?

The ALA recommended response to the above question is "yes." All of the high schools and middle schools responded "yes" to this question. In the elementary schools 96 percent of the schools gave the appropriate response.

Is the library used as a study hall?

All of the high schools, and all but a small percentage of elementary and middle schools responded "no" to this question. The ALA standards state that the library should not be used as a study hall.

Can a teacher schedule time for his/her class (in addition to any regularly scheduled time)?

Again, all of the high schools gave the appropriate response (yes) as did all of the middle schools. About eighty-nine percent of the elementary schools stated that teachers can schedule library time.

Table 7

Percentage of Librarians Responding "Yes"

	High Schools					
	Northwest	Northeast	Southeast	Southwest	East Oak Cliff	Total
Fixed Hours	0.0	0.0	0.0	0.0	0.0	0.0
Small Groups	100.0	100.0	100.0	100.0	100.0	100.0
Study Hall	0.0	0.0	0.0	0.0	0.0	0.0
Scheduling	100.0	100.0	100.0	100.0	100.0	100.0
Hours	83.3	100.0	100.0	100.0	100.0	90.5
Resource Allocation						
Specific Teachers	0.0	0.0	33.3	0.0	0.0	9.5
Centralized	50.0	50.0	33.3	100.0	33.3	52.4
Equipment Maintenance	83.3	75.0	100.0	100.0	66.7	85.7
Preventative Maintenance	16.7	75.0	33.3	100.0	66.7	38.1
Student Information	66.7	50.0	66.7	50.0	100.0	66.7
Teacher Information	50.0	75.0	33.3	50.0	100.0	61.9

Table 8

Percentage of Librarians Responding "Yes"

	Middle School					
	Northwest	Northeast	Southeast	Southwest	East Oak Cliff	Total
Fixed Hours	16.7	0.0	0.0	20.0	0.0	9.5
Small Groups	100.0	100.0	100.0	100.0	100.0	100.0
Study Hall	16.7	0.0	0.0	0.0	0.0	4.8
Scheduling	100.0	100.0	100.0	100.0	100.0	100.0
Hours	100.0	66.7	50.0	100.0	50.0	78.9
Resource Allocation						
Specific Teachers	16.0	0.0	0.0	20.0	0.0	9.5
Centralized	0.0	66.7	100.0	40.0	0.0	38.1
Equipment Maintenance	100.0	66.7	100.0	100.0	66.7	90.5
Preventative Maintenance	16.7	33.3	25.0	50.0	0.0	25.0
Student Information	66.7	100.0	25.0	50.0	66.7	66.7
Teacher Information	33.3	66.7	50.0	80.0	100.0	61.9

Table 9

Percentage of Librarians Responding "Yes"

	Elementary Schools					
	Northwest	Northeast	Southeast	Southwest	East Oak Cliff	Total
Fixed Hours	84.0	80.0	88.2	86.2	70.6	83.1
Small Groups	97.0	96.0	94.4	96.4	94.4	96.0
Study Hall	0.0	0.0	0.0	6.9	5.6	2.4
Scheduling	90.9	92.0	94.4	85.7	83.3	89.6
Hours	68.8	80.0	33.3	41.4	50.0	56.0
Resource Allocation						
Specific Teachers	27.3	20.0	27.8	20.7	33.3	25.4
Centralized	24.2	8.0	38.9	21.4	27.8	23.8
Equipment Maintenance	96.9	96.0	94.4	96.6	100.0	96.8
Preventative Maintenance	56.3	50.0	68.8	58.6	66.7	59.0
Student Information	81.8	76.0	61.1	62.1	94.4	75.4
Teacher Information	72.7	66.7	88.9	72.4	83.3	76.0

Is the library available outside of regular school hours?

The ALA recommends that the school's library be available outside of regular school hours. More than 90 percent of the high schools and 78 percent of the middle schools were in conformity with this standard. Only 56 percent of the elementary schools indicated that their libraries were opened other than regular school hours. It would seem that this is less crucial at the elementary levels than at higher levels where students are more likely to need access to reference works outside of regular school hours.

In what manner are general-use materials allocated?

The ALA states that general use resources be housed in a central location rather than be assigned to specific teacher from whom they can be borrowed. Schools in the DISD vary as to the allocation of general-use materials. While few allocate all such resources to specific teachers (9.5% for high- and middle schools and 25.4% for elementary schools). Many do allocate some resources to specific teachers while others are housed in a central location (about 40%, 50%, and 50% for high, middle, and elementary schools, respectively).

Is there a given person responsible for equipment maintenance?

A given person should be responsible for equipment maintenance. The ALA standards recommend this in the interest of efficiency in that users of equipment should know who to notify in the event that the equipment needs to be repaired. More than 85% of the high schools and more than 90% of the middle- and elementary schools indicated that this was the practice.

Is there a regular program of preventative maintenance of media equipment?

Relatively few of the schools indicated that they had such a program (38.1 percent of the high schools, 25 percent of the middle schools, and 59 percent of the elementary schools). It may be to the District's advantage to consider measures by which a preventative maintenance system can be instituted in more schools.

Is there a formal program by which students and teachers are informed of what media and library facilities are available and how to access them?

Although the majority of schools have such a program there are many which do not. It is not only important that facilities be available but of equal importance is the fact that potential users be made aware of what is available to them.

Overall the schools of the DISD conform to the recommended policies and practices of the ALA. In areas where discrepancies were noted it should be determined whether or not it would be advantageous to implement such a recommendation before any action is taken.

Teacher Characteristics and Student Teacher Ratios

Methodology: Teacher characteristics were obtained from data collected by the Personnel Department from all teachers in the DISD. A teacher was defined for the purpose of this study as full-time, regular classroom teachers. Special education teachers were not included due to their specialized level of their training and function. The variables on which teacher characteristics were computed were:

Sex
Ethnicity
Experience
Degree Level
Bilingual Ability

Average degree level was classified on a three-point system. If the teacher did not have a bachelors he/she received a degree code of zero. (Such teachers are vocational education instructors for whom a college degree is not required.) A teacher was coded 1 for a bachelors, 2 for a masters and 3 for a doctorate. The vast majority of the teachers have either a master's or bachelor's degree. Therefore, a mean score for a school or a subdistrict on this category of 1.30 would indicate that a majority of teachers in the school have a bachelor's degree and about 30% have master's. This may not be a strictly accurate interpretation because the small number of teachers with either no degree or a doctorate may have inflated or depressed this figure.

The student teacher ratios reported were obtained from the C-56 enrollment report current as of 11/16/76. The student teacher ratios reported by that document are again based on classroom teachers and do not include special education teachers.

Results: Teacher characteristics for each subdistrict and the District as a whole are presented in Table 10. The percentage of female teachers and degree level does not vary greatly across subdistricts. With the exception of the East Oak Cliff Subdistrict (45.3) the percentage of minority teachers (non-Anglo) is between 33 and 35 percent. Overall 2.5% of the teachers in the District have Spanish bilingual ability. The subdistrict with the largest percentage are the Northwest (3.7) and Southwest (3.1) subdistricts. The smallest percentages were in the Southeast and East Oak Cliff Subdistricts (1.2). The percentage of Mexican-American students in each subdistrict is:

Northwest	22.1%
Northeast	11.1%
Southeast	8.2%
Southwest	25.8%
East Oak Cliff	1.6%

Therefore, although there is not an exact relationship, there are more Spanish bilingual teachers assigned in subdistricts with higher Mexican-American populations.

Table 10

Teacher Characteristics by Subdistrict

	Northwest	Northeast	Southeast	Southwest	East Oak Cliff	Total
% Female	76.4	77.7	74.9	75.3	78.2	76.0
% Minority	33.1	29.3	34.7	33.7	45.3	34.5
Mean Years Experience	11.68	11.59	10.33	10.74	8.67	10.7
Mean Degree Level	1.41	1.46	1.40	1.39	1.35	1.41
% Spanish Bilingual	3.7	2.9	1.2	3.1	1.2	2.5

Table 17

Student-Teacher Ratios by Type of School

	High School	Middle School	Elementary School
Subdistrict			
Northwest	22.6	22.5	24.6
Northeast	24.2	24.8	24.9
Southeast	24.6	23.1	25.4
Southwest	27.4	25.1	27.5
East Oak Cliff	27.1	24.4	24.7

On the average the most experienced teachers in the District teach in the Northwest Subdistrict (11.68) followed closely by the Northeast Subdistrict. Teachers in the Southwest Subdistricts have about one year less experience than teachers in the Northwest and Northeast Subdistricts. The East Oak Cliff Subdistrict had the lowest mean (8.67). This is almost two years less than the next highest subdistrict.

The student-teacher ratios are given in Table 10. In every case the Northwest Subdistrict has the lowest student teacher ratio in each type of school. The highest student teacher ratios were in the Southwest Subdistrict in each type of school. These inequities are largely due to errors in enrollment projections which were discussed in the per pupil expenditure section of this study. In addition, it is open to question as to whether the means differ enough to be regarded as having any practical significance.

Additional Information:

IR77-025-9-5 School Input Indices, 1976-77, 1977, Wayne R. Applebaum, Glenna Taite.

76-836 Allocation of School Input Resources, 1975-76, James P. Papay.

75-571 Investigations of Classroom Instructional Variables in the Curriulum Areas of Reading, Language Arts, Social Studies, Health-Science, and Mathematics, 1975, Michael R. Vitale, 48 pages.

Abstract

1976-77 School Dropout Indices

Evaluator: Rande H. Smedley

Overview: The purpose of this study is to provide information regarding dropouts in the Dallas Independent School District. Six previous studies have been done regarding District dropouts, each a successive refinement in data collection procedures. This study is similar to the last in that dropouts are defined in the same manner and differs only in that there is a slight variation in the data source (Olson, 1976). This allows comparison of dropout and withdrawal indices between this year's study and the last.

Population: The population for this study consisted of all those students who were enrolled, at some time, in the District's secondary schools (Grades 7-12) and who have a transfer code defined as being a "withdrawal" for the 1976-77 school year.

Source of Data: The source of the data was the July 1976 student history data tape (HIST7677STUD), created from the student data base by Lynn Hand under the direction of Charles Lewis. This history tape differs from the data source of the previous study in that it is an extract from the student data base and assigns all students who are no longer in the District to a school location of 997. The withdrawal data (date of withdrawal, reason for withdrawal, and last school location) represented on this tape originated in the schools and were processed through the Data Services Group of the District's Department of Information Services.

Procedures: A set of three computer programs sifted and refined the student history data for the purposes of this study. The first, entitled DWDLOCATER, merely selected all student records with a school location of 997 and transferred the relevant data sets to a new file entitled DROP/WITHDRAW/7677. The second program (SELECTDROP) merely selected all student records on the previously created file with a school last attended location of less than 100 and greater than zero and transferred these records to a new file, SECONDARY/DROPS/7677, containing only students in the secondary schools. The third and final program, DROPOUTS, selected student records on the basis of reason for withdrawal and date of withdrawal and refined the data for ease of reporting onto the final data file, DROPOUTS/7677. At this stage in the procedures, the reasons for dropping out were refined into the following four categories:

Social/Economic (included "regular employment," and "social or economic factors"),

Marriage,

Dislike School (included "dislike for school," "passing compulsory school age, and "non-scholastic"), and

Military.

The additional reasons for withdrawal (i.e., those additional reasons used previously to identify dropouts) were refined into two categories:

Health (included "commitment to an institution," and "poor health") and

Other (included "expulsion," and "other").

At this stage, 5929 students remained as dropouts or withdrawals by the above-defined reasons for withdrawal. An additional program was produced to tabulate the dropout information by various categories, compute the dropout and withdrawal indices, and provide the tables presented in this report.

Dropout indices were computed by dividing the total number of students identified as dropping out of a particular school by the total number of students enrolled in that school (this included the dropouts) and multiplying by 100. Thus, this index gives the frequency of students who dropped out per 100 enrolled.

Withdrawal indices were computed by adding those withdrawn students who had "other" recorded on their records to the dropouts and dividing this total by the number of students enrolled. This ratio was then multiplied by 100 to give the index.

Major Evaluation Questions:

1. What was the District's overall dropout index for high schools during the 1976-77 school year?
2. What was the District's overall dropout index for Magnet schools and metropolitan schools for the 1976-77 school year?
3. What was the District's overall dropout index for middle schools for the 1976-77 school year?

Results

A summary of the dropout statistics for the whole District is presented in Table 7 for high schools and Table 17 for middle schools. Tables 1 through 6 contain the dropout statistics by subdistrict for high schools while Tables 11 through 16 contain the dropout statistics by subdistrict for the middle schools. Summary statistics for the District's Magnet schools and Metropolitan schools may be found in Tables 9 and 10, respectively. Rankings of high schools and middle schools by dropout index are given in Tables 8 and 18 respectively.

Interpretation of Tables. Tables 1-7 and 9-17 should be fairly self-explanatory. In the first section of the tables, frequencies and percentages of dropouts are given by reason within grade level. The final two lines in this portion of the table (i.e., TOTAL and % OF STUDENTS) give, respectively, the total number of dropouts identified at each grade level and the proportion of enrolled students that this total represents. Actually, when multiplied by 100, these percentages (% OF STUDENTS) yield the dropout indices for each grade level. The interpretation of the dropout and withdrawal indices are straightforward. These are the number of identified dropouts, and the number of students who withdrew as dropouts or for "other" or "health" reasons per 100 enrolled.

The middle portion of the tables provides a percentage breakdown of the dropouts by selected demographic factors. The final portion of the tables gives the frequencies and percentages (of enrollment) of students who were cited as having withdrawn for "health" or "other" reasons.

1. High Schools. The dropout index for the District's high schools is 3.665. This indicates that almost four students in every 100 enrolled in grades 9-12 in the District's high schools during the 1976-77 school year dropped out of school. An additional five students per 100 withdrew for reasons of "health" or "other" vague or unknown reasons. The Seagoville subdistrict had the highest dropout rate, approximately seven of every 100 students. However, when one compares this dropout index with Seagoville's withdrawal index the difference is slight. Few students, two to be exact, withdrew for "health" or "other" reasons. The withdrawal indices of the other subdistricts are not so close to their respective dropout indices. In these instances the vague reasons of students for leaving and/or poor record keeping have artificially lowered the dropout index. The East Oak Cliff had the lowest dropout rate, approximately two per 100 students, and the lowest withdrawal rate, approximately four per 100 students.

The highest rate of dropout occurred in the 11th grade where 5.8% of the students enrolled during the school year dropped out. The most predominant reason given for dropping out was "socioeconomic," with "dislike school" following as a close second. This trend holds across all the high school grades. A small percentage of the high school students withdrew from the District for reasons of "health." A substantial majority withdrew for "other" reasons.

A slightly higher percentage of the dropouts were male (57.87%). More than 70% of the dropouts occurred after the first of the year with March

TABLE 1

1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL — NORTHWEST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONIMIC	12 (33.3%)	23 (24.2%)	30 (23.8%)	21 (31.3%)
MARRIAGE	9 (25.0%)	14 (14.7%)	7 (5.6%)	2 (3.0%)
DISLIKE SCHOOL	15 (41.7%)	55 (57.9%)	82 (65.1%)	39 (58.2%)
MILITARY	0 (0.0%)	3 (3.2%)	7 (5.6%)	5 (7.5%)
TOTAL % OF STUDENTS	36 (1.3%)	95 (3.7%)	126 (5.4%)	67 (3.1%)

DROPOUT INDEX 3.368 — WITHDRAWAL INDEX 13.806

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH DROPPED	
MALE	62.04	13	0.00	SEPT	3.09
FEMALE	37.96	14	0.62	OCT	6.79
		15	4.94	NOV	5.86
ETHNICITY		16	16.05	DEC	5.56
		17	48.15	JAN	18.52
		18	20.68	FEB	13.89
BLACK	22.84	19	8.33	MAR	29.63
MEX-AM	30.86	20	0.93	APR	8.95
OTHER	46.30			MAY	7.10

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	6 (1.6%)	7 (1.7%)	3 (0.8%)	0 (0.0%)
OTHER --	331 (88.7%)	303 (74.8%)	232 (64.3%)	146 (68.5%)
TOTAL % OF STUDENTS	373 (13.4%)	405 (15.8%)	361 (15.6%)	213 (10.0%)

TABLE 2

1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL — NORTHEAST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONIMIC	31 (64.6%)	35 (46.1%)	74 (52.1%)	36 (58.1%)
MARRIAGE	8 (16.7%)	9 (11.8%)	14 (9.9%)	3 (4.8%)
DISLIKE SCHOOL	8 (16.7%)	28 (36.8%)	45 (31.7%)	18 (29.0%)
MILITARY	1 (2.1%)	4 (5.3%)	9 (6.3%)	5 (8.1%)
TOTAL % OF STUDENTS	48 (2.4%)	76 (3.4%)	142 (6.1%)	62 (3.3%)

DROPOUT INDEX 3.887 WITHDRAWAL INDEX 9.065

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX	
MALE	59.45
FEMALE	40.55

ETHNICITY	
BLACK	11.28
MEX-AM	16.77
OTHER	71.95

AGE	
13	0.30
14	1.22
15	7.01
16	24.09
17	42.38
18	18.90
19	4.27
20	1.83

MONTH DROPPED	
SEPT	4.27
OCT	11.28
NOV	7.32
DEC	10.06
JAN	8.23
FEB	6.23
MAR	23.78
APR	12.80
MAY	13.41

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	4 (2.7%)	7 (3.2%)	6 (3.1%)	1 (0.7%)
OTHER	96 (64.9%)	135 (61.[illegible]%)	111 (42.5%)	75 (54.3%)
TOTAL % OF STUDENTS	148 (7.5%)	21[illegible] (9.8%)	2[illegible]1 (11.3%)	138 (7.2%)

TABLE 3

1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL SOUTHWEST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONOMIC	13 (31.0%)	42 (31.8%)	46 (33.3%)	27 (38.0%)
MARRIAGE	11 (26.2%)	10 (7.6%)	11 (8.0%)	4 (5.6%)
DISLIKE SCHOOL	18 (42.9%)	75 (56.8%)	77 (55.8%)	38 (53.5%)
MILITARY	0 (0.0%)	5 (3.8%)	4 (2.9%)	2 (2.8%)
TOTAL % OF STUDENTS	42 (1.9%)	132 (6.1%)	138 (6.9%)	71 (4.3%)

DROPOUT INDEX 4.746 WITHDRAWAL INDEX 8.889

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX	
MALE	59.01
FEMALE	40.99

ETHNICITY	
BLACK	28.20
MEX-AM	27.94
OTHER	43.86

AGE	
13	0.00
14	0.52
15	2.87
16	20.37
17	46.48
18	22.98
19	5.48
20	1.04

MONTH DROPPED	
SEPT	0.78
OCT	3.66
NOV	4.18
DEC	8.62
JAN	24.28
FEB	16.80
MAR	18.28
APR	10.70
MAY	10.70

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	6 (4.3%)	3 (1.3%)	5 (2.4%)	1 (0.8%)
OTHER –	92 (65.7%)	102 (43.0%)	69 (32.5%)	56 (43.8%)
TOTAL % OF STUDENTS	140 (6.2%)	237 (10.9%)	212 (10.6%)	126 (7.8%)

TABLE 4

1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL SOUTHEAST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONIMIC	33 (89.2%)	66 (75.0%)	75 (75.0%)	30 (78.9%)
MARRIAGE	4 (10.8%)	12 (13.6%)	14 (14.0%)	5 (13.2%)
DISLIKE SCHOOL	0 (0.0%)	4 (4.5%)	4 (4.0%)	0 (0.0%)
MILITARY	0 (0.0%)	6 (6.8%)	7 (7.0%)	3 (7.9%)
TOTAL % OF STUDENTS	37 (2.1%)	88 (5.5%)	100 (7.1%)	38 (3.5%)

DROPOUT INDEX 4.469 WITHDRAWAL INDEX 9.567

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH DROPPED	
MALE	55.89	13	0.00	SEPT	4.18
FEMALE	44.11	14	1.14	OCT	11.03
		15	5.70	NOV	4.18
ETHNICITY		16	28.90	DEC	7.98
		17	36.50	JAN	23.19
		18	22.81	FEB	11.03
BLACK	22.43	19	3.42	MAR	14.07
MEX-AM	6.46	20	0.76	APR	15.21
OTHER	71.10			MAY	9.13

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	2 (2.0%)	2 (1.1%)	0 (0.0%)	1 (1.0%)
OTHER	59 (60.2%)	98 (52.1%)	81 (44.8%)	57 (59.4%)
TOTAL % OF STUDENTS	98 (5.4%)	188 (11.8%)	181 (12.9%)	96 (8.9%)

TABLE 5

1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL E. OAK CLIFF SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS
BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONOMIC	9 (75.0%)	22 (62.9%)	10 (35.7%)	7 (30.4%)
MARRIAGE	0 (0.0%)	0 (0.0%)	1 (3.6%)	3 (13.0%)
DISLIKE SCHOOL	3 (25.0%)	10 (28.6%)	11 (39.3%)	8 (34.8%)
MILITARY	0 (0.0%)	3 (8.6%)	6 (21.4%)	5 (21.7%)
TOTAL % OF STUDENTS	12 (0.6%)	35 (1.6%)	28 (2.0%)	23 (2.5%)

DROPOUT INDEX 1.499 WITHDRAWAL INDEX 3.962

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH	DROPPED
MALE	50.00	13	0.00	SEPT	1.02
FEMALE	50.00	14	0.00	OCT	2.04
		15	5.10	NOV	4.08
ETHNICITY		16	16.33	DEC	5.10
		17	39.80	JAN	12.24
		18	28.57	FEB	5.10
BLACK	97.95	19	9.18	MAR	20.41
MEX-AM	2.04	20	1.02	APR	38.78
OTHER	0.00			MAY	11.22

NUMBER AND PERCENTAGE OF WITHDRAWALS
BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	4 (10.0%)	1 (1.5%)	1 (2.5%)	0 (0.0%)
OTHER	24 (60.0%)	31 (46.3%)	11 (27.5%)	89 (79.5%)
TOTAL % OF STUDENTS	40 (1.9%)	67 (3.1%)	40 (2.9%)	112 (12.1%)

```
                          TABLE 6

                 1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL                      SEAGOVILLE SUBDISTRICT
-------------------------------------------------------------
             NUMBER AND PERCENTAGE OF DROPOUTS
               BY GRADE LEVEL AND REASON

REASON               GRADE  9   GRADE 10   GRADE 11   GRADE 12
------               --------   --------   --------   --------
SOCIO-ECONIMIC           3          3          1          0
                     ( 75.0%)   ( 30.0%)   (  5.3%)   (  0.0%)

MARRIAGE                 0          0          1          0
                     (  0.0%)   (  0.0%)   (  5.3%)   (  0.0%)

DISLIKE SCHOOL           1          7         17         14
                     ( 25.0%)   ( 70.0%)   ( 89.5%)   (100.0%)

MILITARY                 0          0          0          0
                     (  0.0%)   (  0.0%)   (  0.0%)   (  0.0%)

TOTAL                    4         10         19         14
% OF STUDENTS        (  2.2%)   (  5.5%)   ( 11.7%)   ( 11.2%)
-------------------------------------------------------------

DROPOUT INDEX     7.165            WITHDRAWAL INDEX     7.470


             DROPOUT PERCENTAGE DISTRIBUTIONS

    SEX                         AGE           MONTH DROPPED
    ---                         ---           ----- -------

    MALE        36.17        13     0.00      SEPT    4.26
    FEMALE      63.83        14     2.13      OCT    12.77
                             15     8.51      NOV     0.00
    ETHNICITY                16    10.64      DEC    12.77
    ---------                17    44.68      JAN    19.15
                             18    31.91      FEB    10.64
    BLACK       14.89        19     2.13      MAR    19.15
    MEX-AM      10.64        20     0.00      APR    14.89
    OTHER       74.47                         MAY     6.38

          NUMBER AND PERCENTAGE OF WITHDRAWALS
             BY GRADE LEVEL AND OTHER REASONS

REASON               GRADE  9   GRADE 10   GRADE 11   GRADE 12
------               --------   --------   --------   --------
HEALTH                   0          0          1          0
                     (  0.0%)   (  0.0%)   (  4.8%)   (  0.0%)

OTHER                    0          0          1          0
                     (  0.0%)   (  0.0%)   (  4.8%)   (  0.0%)

TOTAL                    4         10         21         14
% OF STUDENTS        (  2.2%)   (  5.5%)   ( 12.9%)   ( 11.2%)
-------------------------------------------------------------
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                              TABLE 7

                     1976-77 DROPOUT STATISTICS

HIGH SCHOOL TOTAL                          TOTAL DISTRICT
------------------------------------------------------------------
                  NUMBER AND PERCENTAGE OF DROPOUTS
                     BY GRADE LEVEL AND REASON

REASON                 GRADE  9    GRADE 10    GRADE 11    GRADE 12
------                 --------    --------    --------    --------
SOCIO-ECONIMIC            101         191         236         121
                       ( 56.4%)    ( 43.8%)    ( 42,7%)    ( 44.0%)

MARRIAGE                   32          45          48          17
                       ( 17.9%)    ( 10.3%)    (  8.7%)    (  6.2%)

DISLIKE SCHOOL             45         179         236         117
                       ( 25.1%)    ( 41.1%)    ( 42,7%)    ( 42.5%)

MILITARY                    1          21          33          20
                       (  0.6%)    (  4.8%)    (  6.0%)    (  7.3%)

TOTAL                     179         436         553         275
% OF STUDENTS          (  1.6%)    (  4.0%)    (  5.8%)    (  3.5%)
------------------------------------------------------------------

DROPOUT INDEX      3.665               WITHDRAWAL INDEX      9.409


                 DROPOUT PERCENTAGE DISTRIBUTIONS

      SEX                         AGE           MONTH DROPPED
      ---                         ---           ----- -------

      MALE        57.87       13      0.07      SEPT     2.64
      FEMALE      42.13       14      0.83      OCT      7.62
                              15      5.13      NOV      5.13
      ETHNICITY               16     21.21      DEC      8.04
      ---------               17     43.59      JAN     15.16
                              18     22.16      FEB     12.66
      BLACK       26.40       19      5.61      MAR     21.46
      MEX-AM      19.82       20      1.11      APR     13.65
      OTHER       53.78                         MAY     10.12

                 NUMBER AND PERCENTAGE OF WITHDRAWALS
                   BY GRADE LEVEL AND OTHER REASONS

REASON                 GRADE  9    GRADE 10    GRADE 11    GRADE 12
------                 --------    --------    --------    --------
HEALTH                     22          20          18           3
                       (  2.7%)    (  1.8%)    (  1.7%)    (  0.4%)

OTHER                     602         669         505         423
                       ( 75.0%)    ( 59.5%)    ( 46.9%)    ( 60.3%)

TOTAL                     803        1125        1076         701
% OF STUDENTS          (  7.2%)    ( 10.3%)    ( 11.2%)    (  9.0%)
------------------------------------------------------------------
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Table 8

1976-77 Ranking of Senior High Schools by Dropout Index

High School	Enrollment	Number of Dropouts	Dropout Index	Withdrawal Index
Pinkston, L. G.	2141	28	1.308	14.853
South Oak Cliff	3980	53	1.332	4.397
Roosevelt, F. D.	2557	45	1.760	3.285
White, W. T.	2638	57	2.161	10.690
Lincoln	1183	29	2.451	18.935
Adams, Bryan	3407	86	2.524	9.833
Hillcrest	1669	45	2.696	13.241
Carter, D. W.	2048	59	2.881	10.791
Samuell, W. W.	2066	60	2.904	6.099
Skyline	3581	115	3.211	7.959
Jefferson, T.	2008	70	3.486	12.201
Kimball, J. F.	2512	90	3.583	6.290
Sunset	2129	104	4.885	6.623
Spruce, H. G.	2636	174	6.601	8.080
Seagoville	656	47	7.165	7.470
Wilson, W.	1451	127	8.753	9.993
North Dallas	1337	124	9.274	21.391
Adamson, W. H.	1377	130	9.441	14.306

and January having highest occurrence rate. Incidence of dropout is highest at age 17. The majority of the dropouts were of some ethnic background other than black or Mexican-American.

The high school with the lowest dropout rate was L. G. Pinkston (1.308%). However, when compared to the withdrawal rate for Pinkston (14.853%), which is fairly high, one might conclude that the low dropout rate evidenced by this school is merely due to students supplying vague reasons for leaving and/or poor record keeping. The second and third ranked schools, South Oak Cliff (1.352%) and Franklin D. Roosevelt (1.760%), respectively, have more creditability as they also have the lowest withdrawal rates (4.397% for South Oak Cliff and 3.285% for Franklin D. Roosevelt) and the smallest disparity between the dropout index and withdrawal index. It is not surprising to find, as mentioned earlier, that the East Oak Cliff Subdistrict has the lowest dropout and withdrawal indices as the two schools with the lowest indices comprise this subdistrict. W. H. Adamson and North Dallas high schools have the highest dropout rate, 9.441% and 9.274%, respectively. Unfortunately, they also have high withdrawal rates and are unable to claim meticulous record keeping for their high dropout rates, as in the earlier case of the Seagoville Subdistrict.

2. *Magnet Schools and Metropolitan Schools*. Table 9 presents the dropout statistics for the District's Magnet schools. The dropout index for the Magnet schools was 2.589. These schools are consistent with the regular high schools in that a slightly higher percentage of the dropouts from the Magnet schools were male (58.62%). A plurality of the Magnet school dropouts were of an ethnic background other than black or Mexican-American. More than 80% of Magnet school dropouts left school after the first of the year. A majority of the Magnet school dropouts were age 17 when they left school. "Socioeconomic" was the reason given for dropping out of school most often, followed by "dislike school." The withdrawal index for the Magnet schools was 4.018.

The majority of the students leaving the metropolitan schools (98%) did so for "other" reasons. For this reason a dropout index for these schools has little or no meaning. Likewise statistics for these few dropouts are not adequate to form a clear picture of the dropout situation in these schools.

3. *Middle Schools*. The dropout index for the District's middle schools is 0.375. This indicates a dropout rate of less than one per 100 students. This comparatively low dropout rate in the middle schools is not surprising given that the typical student is still under the compulsory attendance age in these schools. The reason given most often by middle school students was "dislike school." The withdrawal index for these schools is substantially higher, 6.604. Apparently "other" is the reason given most often for leaving school as shown in Table 17. The majority of the middle school dropouts were black. The month of January was the predominant month for dropping out of middle schools. In contrast to high school dropouts, the majority of the middle school dropouts were females. A plurality of middle school dropouts were 14 years of age when they left school.

TABLE 9

1976-77 DROPOUT STATISTICS

SPECIAL MAGNET SCHOOL TOTAL TOTAL DISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONIMIC	4 (66.7%)	4 (50.0%)	5 (35.7%)	0 (0.0%)
MARRIAGE	1 (16.7%)	0 (0.0%)	3 (21.4%)	0 (0.0%)
DISLIKE SCHOOL	1 (16.7%)	4 (50.0%)	5 (35.7%)	1 (100.0%)
MILITARY	0 (0.0%)	0 (0.0%)	1 (7.1%)	0 (0.0%)
TOTAL % OF STUDENTS	6 (1.2%)	8 (2.1%)	14 (10.3%)	1 (1.0%)

DROPOUT INDEX 2.589 WITHDRAWAL INDEX 4.018

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH DROPPED	
MALE	58.62	13	0.00	SEPT	0.00
FEMALE	41.38	14	3.45	OCT	3.45
		15	3.45	NOV	3.45
ETHNICITY		16	27.59	DEC	0.00
		17	62.07	JAN	17.24
		18	3.45	FEB	20.69
BLACK	34.48	19	0.00	MAR	27.59
MEX-AM	17.24	20	0.00	APR	24.14
OTHER	48.28			MAY	3.45

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
OTHER	2 (25.0%)	6 (42.9%)	5 (26.3%)	3 (75.0%)
TOTAL % OF STUDENTS	8 (1.6%)	14 (3.7%)	19 (14.0%)	4 (4.1%)

TABLE 10

1976-77 DROPOUT STATISTICS

SPECIAL METRO SCHOOL TOTAL   TOTAL DISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SOCIO-ECONIMIC	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)
MARRIAGE	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
DISLIKE SCHOOL	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
MILITARY	1 (100.0%)	3 (100.0%)	1 (50.0%)	1 (100.0%)
TOTAL % OF STUDENTS	1 (0.5%)	3 (1.2%)	2 (1.0%)	1 (0.7%)

DROPOUT INDEX   0.677   WITHDRAWAL INDEX   42.607

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX	
MALE	85.71
FEMALE	14.29

ETHNICITY	
BLACK	71.43
MEX-AM	0.00
OTHER	28.57

AGE	
13	0.00
14	0.00
15	0.00
16	0.00
17	42.86
18	28.57
19	14.29
20	14.29

MONTH DROPPED	
SEPT	0.00
OCT	0.00
NOV	0.00
DEC	0.00
JAN	28.57
FEB	14.29
MAR	14.29
APR	28.57
MAY	14.29

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HEALTH	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
OTHER	24 (96.0%)	78 (96.3%)	83 (97.6%)	148 (99.3%)
TOTAL % OF STUDENTS	25 (12.9%)	81 (32.5%)	85 (41.7%)	149 (98.7%)

The East Oak Cliff Subdistrict had the lowest dropout rate and the lowest withdrawal rate. Not much can be determined about dropout characteristics as only for four students was a reason other than "other" given for leaving school. The Northeast Subdistrict had the highest dropout rate, 1.571, in the middle schools, and the highest withdrawal rate, 9.066. A substantial majority of the Northeast Subdistrict middle school dropouts were black. The dropouts consisted of approximately equal numbers of males and females.

Several middle schools had a zero dropout rate, as presented in Table 18. In several instances, however, the withdrawal rate for these schools was quite high. In these cases the low dropout rate may be attributed to vague reasons given by the students and/or poor record keeping. T. W. Browne middle school has a zero dropout rate and the lowest withdrawal rate, 0.086, of the middle schools. W. H. Gaston had the highest dropout rate, 3.780, and the highest withdrawal rate, 12.990.

TABLE 11

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL NORTHWEST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONOMIC	1 (33.3%)	1 (33.3%)
MARRIAGE	2 (66.7%)	2 (66.7%)
DISLIKE SCHOOL	0 (0.0%)	0 (0.0%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	3 (0.1%)	3 (0.1%)

DROPOUT INDEX 0.116 WITHDRAWAL INDEX 7.161

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH	DROPPED
MALE	33.33	13	16.67	SEPT	0.00
FEMALE	66.67	14	33.33	OCT	33.33
		15	50.00	NOV	0.00
ETHNICITY		16	0.00	DEC	0.00
		17	0.00	JAN	16.67
		18	0.00	FEB	0.00
BLACK	16.67	19	0.00	MAR	33.33
MEX-AM	66.67	20	0.00	APR	0.00
OTHER	16.67			MAY	0.00

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	0 (0.0%)	0 (0.0%)
OTHER	193 (98.5%)	166 (98.2%)
TOTAL % OF STUDENTS	196 (7.8%)	169 (6.5%)

TABLE 12

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL NORTHEAST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONOMIC	0 (0.0%)	0 (0.0%)
MARRIAGE	0 (0.0%)	2 (5.1%)
DISLIKE SCHOOL	18 (100.0%)	37 (94.9%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	18 (1.0%)	39 (2.1%)

DROPOUT INDEX 1.571 WITHDRAWAL INDEX 9.065

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH	DROPPED
MALE	50.88	13	31.58	SEPT	0.00
FEMALE	49.12	14	40.35	OCT	1.75
		15	19.30	NOV	0.00
ETHNICITY		16	5.26	DEC	0.00
		17	0.00	JAN	28.07
		18	0.00	FEB	1.75
BLACK	80.70	19	0.00	MAR	0.00
MEX-AM	8.77	20	0.00	APR	0.00
OTHER	10.53			MAY	7.02

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	1 (0.6%)	0 (0.0%)
OTHER	139 (88.0%)	132 (77.2%)
TOTAL % OF STUDENTS	158 (8.8%)	171 (9.3%)

TABLE 13

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL   SOUTHWEST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONIMIC	2 (66.7%)	0 (0.0%)
MARRIAGE	1 (33.3%)	5 (100.0%)
DISLIKE SCHOOL	0 (0.0%)	0 (0.0%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	3 (0.1%)	5 .2%)

DROPOUT INDEX 0.174   WITHDRAWAL INDEX 5.574

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH DROPPED	
MALE	25.00	13	0.00	SEPT	0.00
FEMALE	75.00	14	75.00	OCT	0.00
		15	12.50	NOV	0.00
ETHNICITY		16	12.50	DEC	25.00
		17	0.00	JAN	25.00
		18	0.00	FEB	0.00
BLACK	12.50	19	0.00	MAR	37.50
MEX-AM	37.50	20	0.00	APR	12.50
OTHER	50.00			MAY	0.00

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	1 (0.9%)	7 (4.8%)
OTHER	105 (96.3%)	135 (91.8%)
TOTAL % OF STUDENTS	109 (4.8%)	147 (6.3%)

TABLE 14

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL SOUTHEAST SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONIMIC	1 (25.0%)	3 (37.5%)
MARRIAGE	1 (25.0%)	1 (12.5%)
DISLIKE SCHOOL	2 (50.0%)	4 (50.0%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	4 (0.2%)	8 (0.4%)

DROPOUT INDEX 0.288 WITHDRAWAL INDEX 8.341

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH DROPPED	
MALE	41.67	13	8.33	SEPT	0.00
FEMALE	58.33	14	16.67	OCT	0.00
		15	41.67	NOV	33.33
ETHNICITY		16	8.33	DEC	8.33
		17	25.00	JAN	8.33
		18	0.00	FEB	0.00
BLACK	41.67	19	0.00	MAR	8.33
MEX-AM	25.00	20	0.00	APR	16.67
OTHER	33.33			MAY	25.00

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	0 (0.0%)	1 (0.6%)
OTHER	183 (97.9%)	151 (94.4%)
TOTAL % OF STUDENTS	187 (8.7%)	160 (8.0%)

TABLE 15

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL   E. OAK CLIFF SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONIMIC	0 (0.0%)	1 (50.0%)
MARRIAGE	0 (0.0%)	0 (0.0%)
DISLIKE SCHOOL	0 (0.0%)	1 (50.0%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	0 (0.0%)	2 (0.1%)

DROPOUT INDEX   0.042   WITHDRAWAL INDEX   4.115

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH	DROPPED
MALE	50.00	13	50.00	SEPT	50.00
FEMALE	50.00	14	0.00	OCT	0.00
		15	0.00	NOV	0.00
ETHNICITY		16	50.00	DEC	50.00
		17	0.00	JAN	0.00
		18	0.00	FEB	0.00
BLACK	100.00	19	0.00	MAR	0.00
MEX-AM	0.00	20	0.00	APR	0.00
OTHER	0.00			MAY	0.00

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	0 (0.0%)	0 (0.0%)
OTHER	110 (100.0%)	84 (97.7%)
TOTAL % OF STUDENTS	110 (4.6%)	86 (3.7%)

TABLE 16

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL SEAGOVILLE SUBDISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONOMIC	0 (0.0%)	0 (0.0%)
MARRIAGE	0 (0.0%)	0 (0.0%)
DISLIKE SCHOOL	0 (0.0%)	0 (0.0%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	0 (0.0%)	0 (0.0%)

DROPOUT INDEX 0.000 WITHDRAWAL INDEX 0.506

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX	
MALE	0.00
FEMALE	0.00

ETHNICITY	
BLACK	0.00
MEX-AM	0.00
OTHER	0.00

AGE	
13	0.00
14	0.00
15	0.00
16	0.00
17	0.00
18	0.00
19	0.00
20	0.00

MONTH	DROPPED
SEPT	0.00
OCT	0.00
NOV	0.00
DEC	0.00
JAN	0.00
FEB	0.00
MAR	0.00
APR	0.00
MAY	0.00

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	0 (0.0%)	0 (0.0%)
OTHER	0 (0.0%)	2 (100.0%)
TOTAL % OF STUDENTS	0 (0.0%)	2 (1.1%)

TABLE 17

1976-77 DROPOUT STATISTICS

MIDDLE SCHOOL TOTAL TOTAL DISTRICT

NUMBER AND PERCENTAGE OF DROPOUTS BY GRADE LEVEL AND REASON

REASON	GRADE 7	GRADE 8
SOCIO-ECONIMIC	4 (14.3%)	5 (8.8%)
MARRIAGE	4 (14.3%)	10 (17.5%)
DISLIKE SCHOOL	20 (71.4%)	42 (73.7%)
MILITARY	0 (0.0%)	0 (0.0%)
TOTAL % OF STUDENTS	28 (0.2%)	57 (0.5%)

DROPOUT INDEX 0.375 WITHDRAWAL INDEX 6.604

DROPOUT PERCENTAGE DISTRIBUTIONS

SEX		AGE		MONTH	DROPPED
MALE	45.88	13	24.71	SEPT	1.18
FEMALE	54.12	14	38.82	OCT	3.53
		15	23.53	NOV	4.71
ETHNICITY		16	7.06	DEC	4.71
		17	3.53	JAN	23.53
		18	0.00	FEB	1.18
BLACK	64.71	19	0.00	MAR	7.06
MEX-AM	17.65	20	0.00	APR	3.53
OTHER	17.65			MAY	6.24

NUMBER AND PERCENTAGE OF WITHDRAWALS BY GRADE LEVEL AND OTHER REASONS

REASON	GRADE 7	GRADE 8
HEALTH	2 (0.3%)	8 (1.1%)
OTHER	730 (96.1%)	670 (91.2%)
TOTAL % OF STUDENTS	760 (6.7%)	735 (6.5%)

Table 18

1976-77 Ranking of Middle Schools by Dropout Index

Middle School	Enrollment	Number of Dropouts	Dropout Index	Withdrawal Index
Anderson, P. C.	284	0	0.000	0.352
Atwell, W. H.	449	0	0.000	11.359
Browne, T. W.	1168	0	0.000	0.086
Ervin, J. N.	220	0	0.000	0.909
Hill, R. T.	1053	0	0.000	0.380
Hood, J. B.	1329	0	0.000	12.566
Marsh, T. C.	1180	0	0.000	10.000
Seagoville	395	0	0.000	0.506
Sequoyah	84	0	0.000	1.190
Stone, H. C.	746	0	0.000	4.424
Walker, E. D.	1556	0	0.000	6.170
Holmes, O. W.	1990	1	0.050	4.824
Storey, B.	1807	1	0.055	3.597
Rusk, T. J.	695	1	0.144	14.245
Greiner, W. E.	1202	2	0.166	14.226
Long, J. L.	1121	2	0.178	12.132
Cary, E. H.	1016	2	0.197	0.886
Hulcy, D. A.	695	2	0.288	1.583
Stockard, L. V.	1079	4	0.371	2.039
Comstock, E. B.	1326	6	0.452	12.519
Florence, F. F.	1221	6	0.491	1.065
Spence, A. W.	566	3	0.530	7.420
Gaston, W. H.	1455	55	3.780	12.990

Additional Information:

IR77-012-9-5 1976-77 School Dropout Indices, 1977, Rande H. Smedley.

76-843 1975-76 School Dropout Indices, 1976, George H. Olson.

75-545 Incidence of Dropout for the School Year 1974-75, 1975, Michael V. Miller, George H. Olson, 18 pages.

75-544 Incidence of Dropout During 1973-74, 1975, George H. Olson, Michael V. Miller, 63 pages.

74-247 Incidence of Dropout During 1972-73, 1974, Ronald I. King, 88 pages.

73-143 Incidence of Dropout During 1971-72, 1973, Ronald S. King, 90 pages.

71-34 Design for the Study of the Dropout Problem in the Dallas Independent School District, 1972, George H. Olson, 34 pages.

Abstract

Follow-up of the Class of 1975

Evaluator: Rande H. Smedley

Objectives of the Program: In order to identify the educational and life experiences which better prepare students for their life's work, an extensive longitudinal follow-up of randomly selected members of the class of 1975 was initiated. A longitudinal study, by definition, requires the gathering of data from one sample group at several different points over a period of time. In this case base data were collected from the participants in the spring of their senior year of high school. Information regarding high school experiences, attitudes, activities, employment and educational plans, and personal environment were gathered through use of the Senior Information Survey administered to randomly selected classrooms of seniors. For each of five years following graduation information regarding post-high school education and experiences, employment, socioeconomic status, and perceptions of high school experiences will be collected through the use of mailed surveys. These data will be combined into one comprehensive data base. As each successive year's data is added to the base extensive analyses will be done to reveal any relationships which might exist between high school experiences and future experiences.

Purpose: The purpose of this study is to provide information about seniors in the class of 1975 two years out of high school. Information regarding employment, post-high school education, and perceptions of high school experiences is provided through the use of mailed questionnaires. This year's follow-up data has been combined with base data regarding high school curriculum and activities, employment, future plans, socioeconomics and demographics. Future follow-up information will be added to complete the data bank. This data bank will provide District administrators with extensive information important to decisions concerning long-range planning, resource allocation, and the effectiveness of the educational program.

Sample: Seniors of the class of 1975 were randomly selected by classroom units to participate in this project in the spring of their senior year. Approximately 37% of the active members of the class of 1975 participated in the base year survey. Of the 3160 students comprising the base sample only 40% (1277) responded to the first follow-up survey. Of those 1277 respondents to the first year's follow-up only 43% (549) responded to the second survey. Approximately 49% of the Anglos in the first follow-up survey responded to the second follow-up questionnaire, while 25% of the black and 21% of the Mexican-American first-year follow-up participants responded to the second follow-up. Non response was more prevalent among the male participants in the survey as only 40% responded to the second follow-up compared to a response of 46% of the females. The overall response

of 549 seniors to the base survey and two follow-up surveys provides a sample of approximately 7% of the class of 1975.

Instruments: The data presented in this report were gathered through the use of two instruments, the Senior Information Survey (SIS) and the Follow-up Questionnaire. The SIS is an adaptation of a pre-graduation questionnaire developed by Project TALENT, while the Follow-up Questionnaire was developed by the Institutional Research staff. (Project TALENT is a continuing follow-up study of a national sample of students who graduated or left high school during the years 1960-1963).

The Senior Information Survey adapted by the Institutional Research staff is designed to collect information from participants regarding their activities, high school experiences, and environment. The survey includes 145 questions.

The Follow-up Questionnaire is designed to gather information regarding activities after leaving high school. Items are included in the questionnaire regarding post-high school education, employment, socioeconomics, and demographics. The questionnaire consists of 14 items and is self-addressed and postage paid for ease of return.

Procedure: Follow-up questionnaires were mailed to all respondents to the first follow-up survey. The questionnaires were sent to the addresses supplied by the participants on the follow-up response sheets. Three weeks later a reminder card was sent to those participants who had not yet returned the questionnaire.

At this point in the study a second wave of questionnaires was to have been sent to those who had not yet responded to the follow-up. The response rate was reviewed and found to be lacking as an adequate representative sample of the class of 1975 comprising less than 10% of the class and more significantly being disproportionate with respect to sex, ethnicity, demographic background and achievement compared to the class as a whole. Prior experience has indicated that the additional responses gained from subsequent waves of questionnaires would not be able to remedy the biased nature of this sample and would, therefore, not be worth the expense in money and manpower to obtain them. Questionnaires received within 15 weeks of mailing were included in this report. (The procedure used to collect the SIS data is detailed in Research Report 75-543.)

Major Evaluation Questions:

1. What are the academic experiences of 1975 seniors to years out of high school?
2. What are the experiences of 1975 seniors who have entered the work force?

3. What are the perceptions of 1975 seniors of their high school experiences two years out of high school?

4. What relationships exist between high school plans and the activities of 1975 seniors two years out of high school?

Results

1. More than 90% of the respondents have enrolled in some form of post-high school education. For 83% of the respondents this enrollment was in a 4-year or 2-year college while another 9% enrolled in some type of non-college training. Approximately 85% of the Anglo respondents enrolled in a 4-year or 2-year college program while approximately 70% of the black respondents and 70% of the Mexican-American respondents enrolled in college. The male respondents tended to enroll in some type of college program (86%), more often than female respondents (81%). Approximately half of the respondents enrolled in a school in the metroplex area. Less than 7% of respondents went out of Texas to enroll in a school. Anglo respondents tended to leave the metroplex to attend school slightly more often than black or Mexican-American respondents. Males tended to leave the metroplex more often than females to enroll in school.

2. Over 50% of the Anglo respondents and Mexican-American respondents reported a grade average of A or B for their schoolwork taken after high school. Approximately 20% of the black respondents reported a grade average of A or B for their schoolwork taken since high school. Female respondents tended to report earning high grades since leaving high school slightly more often than males. As might be expected those who had high grades in high school tended to also have high grades in their schoolwork since leaving high school. Those who had low grades in high school tended to improve their grades in their post-high school work. This can be attributed to the biased nature of the sample of respondents. Approvimately 13% of the respondents are no longer participating in the post-high school education program in which they enrolled. Around 14% of the Anglo, 5% of the black, and 38% of the Mexican-American respondents no longer participate in the education program in which they enrolled.

3. Over 40% of the respondents are attending school and not working at any type of occupation. Approximately 40% of the respondents are attending school and working while 14% are working at some type of occupation and not attending any school. Approximately 42% of the Anglo and 46% of the black respondents

attend school without working while only 15% of the Mexican-American respondents do so. A larger proportion of the Mexican-American respondents reported working while attending school than did Anglo or black respondents.

4. Approximately 35% of the respondents reported some type of skilled or semi-skilled trade as their current occupation. Around 10% of the respondents reported a business-related occupation. Less than 8% reported a professional occupation. Due to the amount of post-high school training required for the vast majority of professional jobs, this figure is not unexpected for a sample out of high school only one year. About one-third of the respondents earned less than $100.00 per week at their occupation while 20% earned $100.00 to $200.00 per week. Less than 2% of the respondents reported earning more than $200.00 per week. Female respondents tended to earn less than male respondents. Mexican-American respondents tended to report more income than black or Anglo respondents; however, a higher proportion of Mexican-American respondents reported an income (84% of the Mexican-American respondents as compared to 51% of the Anglo and 42% of the black respondents). Only a little less than 25% of the respondents are working in their chosen career field, while 28% reported their occupation was not in their desired career field. (Although this accounts for only half of the respondents, close to 40% of the respondents are not employed while attending school as reported earlier.)

5. Approximately 6% of the respondents disliked high school to some degree. Black respondents tended to feel favorably toward high school slightly more often than Mexican-American or Anglo respondents. Anglo respondents tended to feel unfavorably toward high school slightly more often than black or Mexican-American respondents. Female respondents tended to feel favorably toward high school slightly more often than male respondents. A little more than 56% of the respondents felt that their high school experience adequately prepared them for their current educational pursuits. One must consider the fact that a little over 90% of the respondents enrolled in some form of post-high school education when interpreting this outcome. Mexican-Americans tended to feel inadequately prepared for their educational pursuits more often than black or Anglo respondents. Approximately 30% of the respondents felt that their high school experiences had adequately prepared them for their current occupational pursuits. Again one must consider that only 50% of the respondents are involved in some form of work when interpreting this result. In this instance Anglo respondents and Mexican-American respondents tended to feel adequately prepared more often than black respondents.

6. Approximately 67% of the respondents who enrolled in some type of post-high school education planned to attend college right after high school. Around 2% of those who originally planned to attend college right after high school did not enroll in any type of post-high school education. A little more than 70% of the respondents enrolled in either a 4-year or 2-year college program had originally planned to attend college right after high school. Over one-sixth of those respondents who did not plan to attend college enrolled in some type of non-college training while another 30% did enroll in college. Of those respondents who indicated plans to major in a specific area in college around one-half actually carried through with these plans. The correlation between high school plans for a college major and actual college major is significant ($r_{xy} = .26294$, $p < .05$). This indicates a positive relationship between high school plans for a college major and actual college major. High school plans for occupation and actual occupation also correlate significantly though to a lesser degree ($r_{xy} = 17759$, $p < .10$). This would not be expected to correlate highly at this time as those who planned professional careers require extensive training before they are eligible for employment in their chosen field. College students employed while acquiring the training necessary for their chosen career are often working in areas not in their chosen field. Approximately one-third of those respondents who planned an occupation in the skilled trades or business are actually working in their chosen area. The lack of respondents working in the more professional areas is reasonable considering the amount of training required by these occupations and the short time these former students have been out of high school.

Additional Information:

IR77-016-9-7 Follow-up of the Class of 1975, 1977, Rande H. Smedley.

IR77-020-3-7 Follow-up of the Class of 1976, 1977, Rande H. Smedley.

76-844 Follow-up of the Class of 1975, 1976, Rande H. Smedley.

75-543 Five-Year Longitudinal Follow-up Study of the Class of 1975: First Annual Report, 1975, Cordelia Alexander, 75 pages.

75-542 A Life-status Report on Members of the Class of 1974, 1975, Rande H. Smedley, 53 pages.

75-541 A Follow-up Study of the Class of 1968, 1975, Rande H. Smedley, 43 pages.

74-245 Handbook for the 1968 Graduate Follow-up Study, 1974, George H. Olson, 46 pages.

74-236 Comprehensive Follow-up Studies of Graduates from DISD High Schools, 1974, George H. Olson, 38 pages.

74-235 Follow-up of 1973 Graduates, 1974, Ronald S. King, 29 pages.

72-121 Follow-up of 1972 Graduates, 1973 Clinton C. Schuhmacher, Kay Maxwell, 7 pages.

72-83 Gaduate Information Survey Results 1972, 1972, Susan J. Whitmore, 47 pages.

72-34 Follow-up of 1971 Graduates, 1972, Clinton C. Schuhmacher, 5 pages.

Abstract

Follow-up of the Class of 1976

Evaluator : Rande H. Smedley

Objectives of the Program: In order to identify the educational and life experiences which better prepare students for their life's work, an extensive longitudinal follow-up of randomly selected members of the class of 1976 was initiated. A longitudinal study, by definition, requires the gathering of data from one sample group at several different points over a period of time. In this case base data were collected from the participants in the spring of their senior year of high school. Information regarding high school experiences, attitudes, activities, employment and educational plans, and personal environment were gathered through use of the Senior Information Survey administered to randomly selected classrooms of seniors. For each of five years following graduation information regarding post-high school education and experiences, employment, socioeconomic status, and perceptions of high school experiences will be collected through the use of mailed surveys. These data will be combined into one comprehensive data base. As each successive year's data is added to the base extensive analyses will be done to reveal any relationships which might exist between high school experiences and future experiences.

Purpose: The purpose of this study is to provide information about seniors in the class of 1976 one year out of high school. Information regarding employment, post-high school education, and perceptions of high school experiences is provided through the use of mailed questionnaires. This year's follow-up data have been combined with base data regarding high school curriculum and activities, employment, future plans, socioeconomics and demographics. Future follow-up information will be added to complete the data bank. This data bank will provide District administrators with extensive information important to decisions concerning long-range planning, resource allocation, and the effectiveness of the educational program.

Sample: Seniors of the class of 1976 were randomly selected with respect to school and sex to participate in the Senior Information Survey during their senior year. Approximately 25% of the active members of the class of 1976 participated in the base year survey. Of the 1983 students comprising the base sample only 30% (604) responded to the first follow-up survey. Approximately 38% of the Anglos in the base survey responded to the follow-up questionnaire, while 18% of the black and 21% of the Mexican-American base survey participants responded to the follow-up. Non-response was more prevalent among the male participants in the base survey as only 27% responded to the follow-up compared to a response of 32% of the females. The overall

response of 604 seniors to the base survey and the follow-up provides a sample of approximately 7.5% of the class of 1976.

Instruments: The data presented in this report were gathered through the use of two instruments, the Senior Information Survey (SIS) and the Follow-up Questionnaire. The SIS is an adaptation of a pre-graduation questionnaire developed by Project TALENT, while the Follow-up Questionnaire was developed by the Institutional Research staff. (Project TALENT is a continuing follow-up study of a national sample of students who graduated or left high school during the years 1960-1963).

The Senior Information Survey adapted by the Institutional Research staff is designed to collect information from participants regarding their activities, high school experiences, and environment. The survey includes 145 questions.

The Follow-up Questionnaire is designed to gather information regarding activities after leaving high school. Items are included in the questionnaire regarding post-high school education, employment, socioeconomics, and demographics. The questionnaire consists of 15 items and is self-addressed and postage paid for ease of return.

Procedure: Follow-up questionnaires were mailed to all participants in the 1976 SIS. The questionnaires were sent to the addresses supplied by the participants on the SIS response sheets. Three weeks later a reminder card was sent to those participants who had not yet returned the questionnaire.

At this point in the study a second wave of questionnaires was to have been sent to those who had not yet responded to the follow-up. The response rate was reviewed and found to be lacking as an adequate representative sample of the class of 1976 comprising less than 10% of the class and more significantly being disproportionate with respect to sex, ethnicity, demographic background and achievement compared to the class as a whole. Prior experience has indicated that the additional responses gained from subsequent waves of questionnaires would not be able to remedy the biased nature of this sample and would, therefore, not be worth the expense in money and manpower to obtain them. Questionnaires received within 15 weeks of mailing were included in this report. (The procedure used to collect the SIS data is detailed in Research Report 76-845.)

Major Evaluation Questions:

1. What are the academic experiences of 1976 seniors one year out of high school?

2. What are the experiences of 1976 seniors who have entered the work force?

3. What are the perceptions of 1976 seniors of their high school experiences one year out of high school?

4. What relationships exist between high school plans and the activities of 1976 seniors one year out of high school?

Results

1. More than 80% of the respondents have enrolled in some form of post-high school education. For 72% of the respondents this enrollment was in a 4-year or 2-year college while another 9% enrolled in some type of non-college training. Approximately 75% of the Anglo respondents enrolled in a 4-year or 2-year college program while approximately 70% of the black respondents and 38% of the Mexican-American respondents enrolled in college. The males tended to enroll in some type of college program (75%) more often than females (69%). Approximately half of the respondents enrolled in a school in the metroplex area. Less than 4% of respondents went out of Texas to enroll in a school. Anglo respondents tended to leave Texas to attend school more often than black or Mexican-American respondents. Males tended to leave the metroplex and Texas more often than females to enroll in school.

2. Over 40% of the Anglo respondents reported a grade average of A or B for their schoolwork taken after high school. Approximately 24% of the black respondents and 26% of the Mexican-American respondents reported a grade average of A or B for their schoolwork taken since high school. Female respondents tended to report earning high grades since leaving high school slightly more often than males. As might be expected those who had high grades in high school tended to also have high grades in their schoolwork since leaving high school. Those who had low grades in high school tended to improve their grades in their post-high school work. This can be attributed to the biased nature of the sample of respondents. Approximately 6% of the respondents are no longer participating in the post-high school education program in which they enrolled. Around 5% of the Anglo, 13% of the black, and 3% of the Mexican-American respondents no longer participate in the education program in which they enrolled.

3. Over 40% of the respondents are attending school and not working at any type of occupation. Approximately 36% of the respondents are attending school and working while 18% are working at some type of occupation and not attending any school. Approximately 44% of the Anglo and 44% of the black respondents attend school without working while only 20% of the

Mexican-American respondents do so. A larger proportion of the Mexican-American respondents reported working while attending school than did Anglo or black respondents.

4. Approximately 35% of the respondents reported some type of skilled or semi-skilled trade as their current occupation. Around 10% of the respondents reported a business-related occupation. Less than 3% reported a professional occupation. Due to the amount of post-high school training required for the vast majority of professional jobs, this figure is not unexpected for a sample out of high school only one year. Little more than one-fourth of the respondents earned less than $100.00 per week at their occupation while 20% earned $100.00 to $200.00 per week. Less than 1% of the respondents reported earning more than $200.00 per week. Female respondents tended to earn less than male respondents. Mexican-American respondents tended to report higher incomes than black or Anglo respondents; however, a higher proportion of Mexican-American respondents reported an income (76% of the Mexican-American respondents as compared to 50% of the Anglo and 33% of the black respondents). Only a little less than 25% of the respondents are working in their chosen career field, while 26% reported their occupation was not in their desired career field. (Although this accounts for only half of the respondents, over 40% of the respondents are not employed while attending school as reported earlier.)

5. Of the 604 respondents, all but three (0.50%) reported that they had graduated from high school. Approximately 6% of the respondents disliked high school to some degree. Black respondents tended to feel favorably toward high school slightly more often than Mexican-American or Anglo respondents. Mexican-American respondents tended to feel unfavorably toward high school slightly more often than black or Anglo respondents. Female respondents tended to feel favorably toward high school more often than male respondents. A little more than 65% of the respondents felt that their high school experience adequately prepared them for their current educational pursuits. One must consider the fact that only a little over 80% of the respondents enrolled in some form of post-high school education when interpreting this outcome. Mexican-Americans tended to feel inadequately prepared for their educational pursuits more often than black or Anglo respondents. A little less than 30% of the respondents felt that their high school experiences had adequately prepared them for their current occupational pursuits. Again one must consider that only 50% of the respondents are involved in some form of work when interpreting this result. In this instance Mexican-American respondents tended to feel adequately prepared more often than Anglo or black respondents.

6. Approximately 65% of the respondents who enrolled in some type of post-high school education planned to attend college right after high school. Around 5% of those who originally planned to attend college right after high school did not enroll in any type of post-high school education. A little more than 86% of the respondents enrolled in either a 4-year or 2-year college program had originally planned to attend college right after high school. Approximately 7% of those respondents who did not plan to attend college enrolled in some type of non-college training while 3% did enroll in college. Of those respondents who indicated plans to major in a specific area in college almost one-third actually carried through with these plans. The correlation between high school plans for a college major and actual college major is not significant ($r_{xy} = -0.06275$, $p > .10$). This indicates no discernable relationship between high school plans for a college major and actual college major. High school plans for occupation and actual occupation do not correlate significantly ($r_{xy} = .11067$, $p > .10$). This would not be expected to correlate highly at this time as those who planned professional careers require extensive training before they are eligible for employment in their chosen field. College students employed while acquiring the training necessary for their chosen career are often working in areas not in their chosen field. Approximately 70% of those respondents who planned an occupation in the skilled trades are actually working in a skilled trade. The lack of respondents working in the more professional areas is reasonable considering the amount of training required by these occupations and the short time these former students have been out of high school.

Additional Information:

IR77-020-9-7 Follow-up of the Class of 1976, 1977, Rande H. Smedley.

IR77-016-3-7 Follow-up of the Class of 1975, 1977, Rande H. Smdley.

76-844 Follow-up of the Class of 1975, 1976, Rande H. Smedley.

75-543 Five-Year Longitudinal Follow-up Study of the Class of 1975: First Annual Report, 1975, Cordelia Alexander, 75 pages.

75-542 A Life-status Report on Members of the Class of 1974, 1975, Rande H. Smedley, 53 pages.

75-541 A Follow-up Study of the Class of 1968, 1968, 1975, Rande H. Smedley, 43 pages.

74-245 Handbook for the 1968 Graduate Follow-up Study, 1974, George H. Olson, 46 pages.

74-236 Comprehensive Follow-up Studies of Graduates from DISD High Schools, 1974, George H. Olson, 38 pages.

74-235 Follow-up of 1973 Graduates, 1974, Ronald S. King, 29 pages.

72-121 Follow-up of 1972 Graduates, 1973 Clinton C. Schuhmacher, Kay Maxwell, 7 pages.

72-83 Graduate Information Survey Results 1972, 1972, Susan J. Whitmore, 47 pages.

72-34 Follow-up of 1971 Graduates, 1972, Clinton C. Schuhmacher, 5 pages.

IR77-026-3-5

Abstract

Socioeconomic Status Study

Evaluators: Daniel S. Sheehan
Mary Marcus

PERSPECTIVE

Socioeconomic status (SES) data have been collected by the Research, Evaluation, and Information Systems staff since 1972 (Research Reports: 72-92; 73-196; 74-243; 76-835). These data have been useful in describing school communities, in assisting decision-makers interpret test results, and in providing teachers and administrators with an overall frame-of-reference for evaluating student performance. Yet, these studies have either encountered data collection problems, or they have utilized a limited range of SES variables.

Thus, the primary purposes of this investigation were: To develop an instrument which could be administered to large groups of students, and which would provide information on a wide range of social status variables; to determine the dimensions (or factors) underlying the social status variables; and to develop an SES index for each school community based on the social status dimensions.

METHODOLOGY

Sample

The sampling procedure consisted of selecting classes at each of the grade levels 4, 8, and 9. Subsample composition at each of these grade levels was as follows:

1. Five randomly selected second-period classes from grade 9 of each DISD high school;

2. Five randomly selected first-period classes from grade 8 of each DISD middle school not impacted by the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al. (filed in the United States District Court for the Northern District of Texas Dallas Division on April 7, 1976), and all academic first-period classes in each DISD middle school impacted by the Final Order (Cary, Comstock, Florence, Gaston, Hill, Hood, Marsh, Rusk, and Walker); and

3. All academic homeroom classes from grade 4 of each DISD intermediate school.

To insure a sufficient level of precision (a 10% standard error) in the estimation of the SES indices, five classes were randomly selected from each high school and from each middle school not impacted by the Final Order. All of the academic first-period classes were utilized in the middle schools impacted by the Final Order because data from these classes were available from a related survey. Finally, all of the academic homeroom fourth-grade classes were selected because the fourth-grade data were used to reconstruct the SES characteristics of each elementary school community. This provided precise elementary school SES estimates and avoided the necessity of sampling classrooms from each elementary school.

The total sample consisted of 7265 fourth-grade students (34% Anglo, 50% black, 16% Mexican-American), 4053 eighth-grade students (50% Anglo, 39% black, 11% Mexican-American), and 1606 ninth-grade students (49% Anglo, 40% black, 11% Mexican-American).

Instrument

A Student Inventory was developed for administration to the sampled classes in grades 4, 8, and 9. The Student Inventory contained [illegible] items (36 items for grade 4 students) that measured such aspects of social class as parental education, parental occupation, family ownership, and family sociocivic and aesthetic involvement. Principal sources of the items were [illegible]gh's (1970) Home Index, Hollingshead's (1949) Two-Factor Index of Social Position, and Colemen's (1966) School Survey Tests.

Procedure

Classroom teachers administered the Student Inventory to the sampled classes at each grade level during the two-week period from January 24, 1977 to February 4, 1977.

All of the teachers were instructed to read the inventory directions to their students and to explain any items that caused confusion. In addition, because some fourth-grade students had difficulty reading the items, the fourth-grade teachers were instructed to read each item aloud to their students as the students followed along.

Analyses

Determination of SES Dimensions

The responses to the social class items contained in the Student Inventory were analyzed separately for each of the grade levels 4, 8, and 9. The first step in each analysis consisted of removing all student records which were more than 10% incomplete. The item scores on the remaining student records were then replaced by item Z scores. Items to which a retained student had not responded were replaced by the average Z score for the student. These steps were taken to insure that the correlations among the social class items would be based on the same group of students.

Principal factoring with iteration was used to analyze the matrix of Pearson product-moment correlations among the social class items. The initial factor solution was orthogonally rotated according to the varimax criterion.

For each grade, a number of solutions, each retaining a different number of factors, was attempted. The solution that was retained at each grade level was that which proved most interpretable.

The factor-score coefficient matrix, rather than the factor-pattern matrix, was used to interpret the factors. Elements of the factor-pattern matrix can be thought of as simple correlation coefficients between a factor and an external variable (assuming an orthogonal solution). Factor-score coefficients, however, can be thought of as regression coefficients for predicting factor scores from external variables (Harris, 1975). The factor-score coefficients thus provide the most direct interpretation of the factors.

Calculation of SES Indices

After obtaining interpretable SES dimensions at each grade level, an SES index was calculated for each DISD school. Separate analyses on the data from grades 4, 8, and 9 resulted in indices for each intermediate, middle, and high school, respectively. The first step in each analysis was the calculation of factor scores for each student. School factor scores were calculated by averaging the factor scores of the students in each school. The matrix of Pearson product-moment correlations among the school factor scores was analyzed using the principal components method. The solution was a single component which maximally discriminated among the schools. Scores on the component were calculated for each school. An SES index was calculated for each school by transforming the component scores to T scores (mean of 50 and standard deviation of 10).

Elementary school SES indices were calculated by re-analyzing the fourth-grade data in terms of the elementary schools which the fourth-grade students attended last year.

RESULTS

SES Dimensions

Factor-score coefficients 0.10 or larger in absolute value were given primary consideration in interpreting the factors.

Factor 1: Material Possessions

The following questions from the Student Inventory define this factor at all three grade levels:

1. Does your family have a washing machine?
2. Does your family have a vacuum cleaner?
3. Does your family have a telephone?
4. Does your family have two or more cars?
5. Does your family have a color television set?
6. Does your family rent its home or apartment?

Students with high scores on this factor responded positively to the first five questions and negatively to the last question. Students with low scores on this factor responded negatively to the first five questions and positively to the last question.

Thus, high scorers on this factor come from families having washing machines, color televisions, two or more cars, vacuum cleaners, and telephones. These families own their own homes. Low scorers on this factor come from families without washing machines, color televisions, vacuum cleaners, and telephones. These families have less than two cars and rent their homes or apartments.

Factor 2: Size of Family Unit

The following two questions clearly define this factor at all three grade levels:

1. How many people presently live in your home?
2. How many children (under 18 years old) are in your family?

Students with high scores on this factor indicated that they have a greater number of people presently living in their homes, and there are greater numbers of children under 18 in their families. Students with low scores on this factor indicated that they have fewer people presently living in their homes, and they come from families with fewer children under 18.

Factor 3: Social-Cultural Activities

The following questions mark this factor at all three grade levels:

1. Have you ever had private lessons in music, dancing, art, or other lessons outside your home?

2. Do you now belong to any club where you have to pay money?

3. Do you have a study desk of your own in your home?

4. Do you have a piano in your home?

5. Does your mother or father belong to any clubs or organizations such as study, civic, or social clubs (for example, Bible study, PTA, or bridge club)?

Students with high scores on this factor responded positively to these questions while students with low scores responded negatively.

Thus, high scorers on this factor have had private lessons, belong to clubs requiring dues, and have study desks of their own. Their homes have pianos and their parents belong to study, civic, or social clubs. Low scorers on this factor have not had private lessons, do not belong to clubs requiring dues, and do not have study desks of their own. Their homes do not have pianos and their parents do not belong to study, civic, or social clubs.

Factor 4: Use of a Non-English Language

The following two items clearly mark this factor at all three grade levels:

1. Does anyone in your home speak a language other than English _most_ of the time?

2. Do you _often_ speak a language other than English outside of school?

Students with high scores on this factor indicated that they come from homes where someone speaks a non-English language _most_ of the time and the students themselves _often_ speak a non-English language outside of school. Students with low scores on this factor indicated that they come from homes where no one speaks a non-English language _most_ of the time and the students do not _often_ speak a non-English language outside of school.

Factor 5: Educational Attainment-Occupational Status

The following questions define this factor at grade levels 8 and 9:

1. What work does your father do?

2. What work does your mother do?

3. How far did your mother go in school?

4. How far did your father go in school?

Students with high scores on this factor indicated that their parents have more formal education, and tend to have more prestigious occupations. Students with low scores on this factor indicated that their parents have less formal education, and tend to have less prestigious occupations.

This "educational attainment-occupational status" factor is not defined at the fourth-grade level. Fifty-six percent of the fourth-grade students did not answer, or gave inconsistent answers to questions about their mother's education (e.g., their mother graduated from college but did not go to college). Fifty-eight percent did not answer, or gave inconsistent answers to questions about their father's education (e.g., their father graduated from college but did not go to high school). Instead of including these items in the analysis, and replacing the missing or inconsistent responses with average responses to non-missing items, it was decided to omit these items.

The occupation items were included in the fourth-grade analysis. However, the factor-score coefficients for these items were low, and, consequently, the occupation items did not contribute substantially to the definition of any of the factors.

SES Indices

Tables 1-[illegible] report the SES indices by school type (elementary, intermediate, middle, and high) within each subdistrict. In interpreting the SES indices, it should be remembered that the indices maximally discriminate among the schools in terms of the underlying SES dimensions. For example, middle and high schools with larger indices would have more students from smaller families who have more material possessions and who engage in more social and cultural activities. A non-English language would not be used in their homes, and their parents would have more formal education and also tend to have more prestigious occupations.

Middle and high schools with smaller indices would have more students from larger families who have less material possessions and who engage in fewer social and cultural activities. A non-English language may be used in their homes, and their parents would have less formal education and also tend to have less prestigious occupations.

Elementary and intermediate schools with larger indices would have more students from smaller families who have more material possessions, who engage in more social and cultural activities, and who would not use a non-English language.

Elementary and intermediate schools with smaller indices would have more students from larger families who have less material possessions, who engage in fewer social and cultural activities, and who may use a non-English language.

Table 1

SES Indices for the Elementary Schools, Intermediate Schools, Middle Schools, and High Schools in the Northeast Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	Bayles	61.9	Lakewood	71.9
	Brown	43.8	R. Lee	45.3
	Casa View	56.0	Lipscomb	40.7
	City Park	40.8	Mount Auburn	42.9
	Colonial	37.3	Reilly	63.7
	Conner	67.5	Reinhardt	61.0
	Crockett	34.2	Rice	45.1
	Frazier	44.9	Roberts	39.4
	Gill	62.1	Sanger	58.7
	Harris	41.9	Silberstein	48.4
	Hexter	64.5	Truett	60.2
	Hassell	40.8	Urban Park	53.0
	S. Jackson	64.5	Wheatley	47.8
	Kiest	56.9	Rowe	50.1
Intermediate Schools				
	Bayles	57.1	Reilly	60.6
	Conner	60.7	Reinhardt	58.3
	Crockett	32.4	Roberts	38.3
	S. Jackson	66.0	Rowe	48.1
	Lakewood	57.8	Sanger	53.7
	R. Lee	42.9	Silberstein	48.9
	Lipscomb	36.5	Truett	56.8
	Mount Auburn	39.7		
Middle Schools				
	Gaston	56.2	Long	45.3
	Hill	58.7		
High Schools	Bryan Adams	66.1	Skyline	57.5
	Madison	39.6	Wilson	47.1

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Table 2

SES Indices for the Elementary Schools, Intermediate Schools, Middle Schools, and High Schools in the Northwest Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	Allen	32.1	Kramer	74.1
	Arlington Park	52.5	Longfellow	51.7
	Bonham	43.4	Maple Lawn	49.0
	Burnet	49.2	Marcus	55.5
	Cabell	65.6	Milam	46.1
	Caillet	64.7	Pershing	67.7
	Carr	45.1	Polk	48.0
	Carver	39.8	Preston Hollow	65.8
	Dealey	68.2	Ray	42.2
	DeGolyer	72.9	Rogers	63.0
	Earhart	42.8	Travis	36.3
	Fannin	39.7	Tyler	40.1
	Field	41.4	Walnut Hill	71.2
	Foster	55.3	Williams	52.4
	Gooch	68.0	Withers	71.8
	Hotchkiss	57.2	N. Adams	73.2
	Houston	35.3	Navarro	43.1
	Knight	37.6		
Intermediate Schools				
	Burnet	53.2	Marcus	39.7
	Caillet	53.1	Milam	37.5
	Field	42.7	Pershing	57.9
	Foster	52.4	Polk	48.5
	Hotchkiss	41.6	Preston Hollow	60.3
	Knight	33.9	Rogers	50.6
	Longfellow	55.7	Walnut Hill	61.0
	Maple Lawn	48.3	Williams	59.3
Middle Schools				
	Cary	56.7	Spence	30.2
	Marsh	62.8	Walker	64.4
	Rusk	56.5		
High Schools				
	Hillcrest	67.2	Pinkston	35.6
	T. Jefferson	48.1	White	66.6
	North Dallas	35.8		

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Table 3

SES Indices for the Elementary Schools, Intermediate Schools, Middle Schools, and High Schools in the Southeast Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	J. Q. Adams	51.4	Macon	49.2
	Anderson	50.5	Moseley	49.5
	Blair	46.9	Rhoads	43.4
	Blanton	55.3	San Jacinto	50.0
	Dorsey	55.5	Thompson	40.0
	Dunbar	49.6	Titche	52.5
	Hawthorne	55.8	Runyon	55.7
	Ireland	50.4	Buckner	46.8
	Lagow	53.9		
Intermediate Schools				
	J. Q. Adams	52.4	Hawthorne	56.9
	Blair	49.2	Ireland	45.7
	Blanton	55.6	Rylie	53.5
	Burleson	50.4	San Jacinto	49.3
	Dorsey	50.1		
Middle Schools				
	Comstock	40.6	Hood	51.3
	Florence	46.9		
High Schools				
	Lincoln	42.4	Spruce	43.9
	Samuell	56.1		

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Table 4

SES Indices for the Elementary Schools, Intermediate Schools, Middle Schools, and High Schools in the Southwest Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	Arcadia Park	41.2	Peabody	44.2
	Bowie	34.0	Peeler	39.7
	Carpenter	61.1	Reagan	40.0
	Cowart	48.2	Rosemont	51.6
	Davis	52.3	Stemmons	55.6
	Donald	46.6	Stevens Park	50.4
	Douglass	36.7	Terry	58.1
	Hall	50.8	Turner	64.2
	Henderson	52.9	Twain	56.6
	Hogg	37.1	Webster	61.9
	Hooe	48.8	Weiss	47.4
	Jones	41.9	Winnetka	37.9
	Lanier	34.1	Alexander	55.5
	U. Lee	49.8	Cochran	54.0
Intermediate Schools				
	Alexander	57.8	U. Lee	51.0
	Arcadia Park	39.1	Peabody	42.8
	Bowie	27.0	Peeler	38.3
	Carpenter	61.1	Reagan	33.8
	Cochran	56.6	Rosemont	55.2
	Cowart	48.6	Stemmons	62.6
	Davis	56.1	Stevens Park	51.1
	Donald	46.4	Terry	63.6
	Hall	53.1	Turner	70.1
	Henderson	53.7	Twain	59.7
	Hogg	33.8	Webster	69.7
	Hooe	49.0	Weiss	51.1
	Jones	39.1	Winnetka	31.2
	Lanier	33.2		
Middle Schools				
	Atwell	69.5	Hulcy	50.1
	Browne	57.4	Stockard	39.2
	Greiner	44.3		
High Schools				
	Adamson	40.7	Kimball	60.6
	Carter	52.5	Sunset	51.5

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Table 5

SES Indices for the Elementary Schools, Intermediate Schools, Middle Schools, and High Schools in the East Oak Cliff Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	Bryan	47.9	Marsalis	54.9
	Budd	46.1	Miller	48.8
	Bushman	45.2	Mills	48.0
	Darrell	49.6	Pease	47.2
	Ervin	51.0	Thornton	56.7
	Harllee	44.2	Marshall	31.7
	Johnston	45.0	Seguin	45.6
	Lisbon	47.6		
Intermediate Schools				
	Bryan	48.4	Marsalis	58.4
	Budd	44.9	Miller	50.1
	Bushman	45.2	Mills	48.1
	Ervin	52.2	Oliver	56.2
	Harllee	43.1	Russell	44.4
	M. Jackson	48.7	Thornton	62.1
	Johnston	44.4	Young	47.2
	Lisbon	46.6		
Middle Schools				
	Ervin	59.3	Stone	40.8
	Holmes	42.9	Storey	43.4
High Schools				
	Roosevelt	44.2	South Oak Cliff	47.6

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Table 6

SES Indices for the Elementary Schools, Intermediate Schools, and High School in the Seagoville Subdistrict[1]

	School	SES Index	School	SES Index
Elementary Schools				
	Kleberg	50.8	Seagoville	55.0
Intermediate Schools				
	Kleberg	52.4	Seagoville	59.6
High School				
	Seagoville	47.4		

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

DISCUSSION AND CONCLUSIONS

The means and standard deviations of the school SES indices by school level and subdistrict are reported in Table 7. A striking feature of the table is the homogeneity of SES levels across subdistricts. The range of SES levels across subdistricts is only 5.9 for the elementary schools, 6.6 for the intermediate schools, 7.8 for the middle schools, and 6.7 for the high schools.

Although there is uniformity of SES status across subdistricts, there is much more diversity within some subdistricts than within others. The standard deviations show that the schools in the Southeast and East Oak Cliff Subdistricts are relatively homogeneous. The schools in the Northwest, Northeast, and Southwest Subdistricts are more heterogeneous. For example, the elementary school SES indices for the Southeast Subdistrict range from 40.0 (Thompson) to 55.8 (Hawthorne). The elementary school SES indices for the Northwest Subdistrict range from 32.1 (Allen) to 74.1 (Kramer).

Thus, the subdistricts are quite similar in terms of level of SES. Some subdistricts, however, have much more variability than others.

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Table 7

Means and Standard Deviations of School SES Indices by School Level and Subdistrict[1]

	School Level							
	Elementary		Intermediate		Middle		High	
Subdistrict	M	SD	M	SD	M	SD	M	SD
Northwest	53.2	12.8	49.7	8.2	54.1	12.4	50.7	14.0
Northeast	51.[illegible]	10.5	50.5	10.0	53.4	5.8	52.6	10.5
Seagoville	52.9	2.1	56.0	3.6	--	--	47.4	--
East Oak Cliff	47.3	5.4	50.0	5.7	46.6	7.4	45.9	1.7
Southeast	51.6	5.5	51.5	3.3	46.3	4.4	47.5	6.1
Southwest	48.6	8.4	49.4	11.7	52.1	10.6	51.3	7.1

[1] Note: District Mean SES = 50.0, Standard Deviation = 10.0.

Additional Information:

IR77-026-9-5 Socioeconomic Status Study, 1977, Daniel S. Sheehan, Mary Marcus.

76-835 Social Economic Characteristics of DISD Elementary School Communities, 1976, James P. Papy, Reagan Sides, 73 pages.

74-243 Socioeconomic Profiles of School Communities in the DISD, 1974, Cordelia R. Alexander, 73 pages.

73-181 A Preliminary Survey of the Relationship between Socioeconomic Status and Achievement for Dallas Public Elementary School Children, 1973, William J. Webster, Robert L. Mendro, 37 pages.

72-92 Socioeconomic Profiles of School Communities in the Dallas Independent School District, 1972, Charles A. Hunter, 23 pages.

72-86 Socioeconomic Profiles of School Communities in the Dallas Independent School District, 1972, Charles A. Hunter, 5 pages.

73-181

Abstract

A Preliminary Survey of the Relationship Between Socioeconomic Status and Achievement for Dallas Public Elementary School Children

Evaluators: William J. Webster and Robert L. Mendro

Purpose of the Evaluation: This study was designed to investigate one question: Within ethnic background, do achievement and aptitude scores of Dallas Independent School District (DISD) elementary school children track according to their socioeconomic status?

Sample: Subjects were all DISD students enrolled in grades one to six during the 1972-73 school year for whom scores were available on at least one of the DISD system-wide aptitude or achievement tests administered during the fall of that year.

Evaluation Design: The index of socioeconomic status used was drawn from census figures on median parental income and educational level for each school community. The measures of achievement were the Comprehensive Tests of Basic Skills (CTBS) in grades three through six, the California Achievement Tests (CAT) in grade two, and the Metropolitan Readiness Tests (MRT) in grade one. Schools were divided into quartiles on the basis of socioeconomic status. Achievement data were summarized for each quartile and grade, both by ethnic group and across ethnic groups.

Evaluation Results: The results of the study suggested that within ethnic background, student aptitude and achievement scores were indicative of the socioeconomic level of the school community; that is, the higher the socioeconomic level, the higher the student aptitude and achievement scores. Table 1 presents a typical pattern of relationship.

Table 1

Summary Statistics For The Reading Subtests Of Various District Tests, Grades 2-6, Anglo, By Socioeconomic Quartile

Grade	2	3	4	5	6
Test	CAT	CTBS	CTBS	CTBS	CTBS
Quartile 1					
Mean	76.2	36.0	33.7	43.2	51.8
Std. Dev.	19.4	17.5	14.9	17.4	18.1
X	1308	1402	1557	1535	1517
N	28	32	33	37	32

Table 1 (Continued)

Grade	2	3	4	5	6
Test	CAT	CTBS	CTBS	CTBS	CTBS
Quartile 2					
Mean	80.6	39.3	37.2	50.3	56.4
Std. Dev.	18.8	18.3	16.2	17.5	17.3
X	1262	1527	1528	1619	1443
N	24	25	23	24	23
Quartile 3					
Mean	85.3	47.6	44.3	56.1	62.2
Std. Dev.	22.1	19.0	16.5	16.4	15.6
X	1285	1508	1545	1618	1529
N	19	19	19	19	17
Quartile 4					
Mean	87.5	54.4	48.5	60.7	66.8
Std. Dev.	25.6	17.3	15.8	14.3	12.7
X	1348	1385	1562	1482	1404
N	20	19	18	17	16

Perusal of Table 1 clearly suggests that raw score achievement means track socioeconomic status level, that is, the lowest quartile socioeconomic status (Quartile 1) always evidenced the lowest achievement and the highest quartile socioeconomic status (Quartile 4) always evidenced the highest achievement. Since socioeconomic status was used as a measure of home environment, it was thus thought to be indicative also of a child's opportunities for intellectual growth in the home. The focus of the study was therefore on socioeconomic status as an indicator of the following:

1. achievement press
2. language models in the home and peer group
3. academic guidance provided in the home
4. stimulation, provided in the home, to explore various aspects of the larger environment
5. intellectual interests and activities in the home and peer group
6. work habits emphasized in the home and in the peer group

Socioeconomic status appears to be highly related to achievement among DISD elementary school children. Since the environmental portion of achievement is amenable to intervention, this further suggests that appropriate environmental intervention in the home could provide a pronounced contribution toward reducing the achievement gap and providing quality education for all students. However, in order for valid conclusions to be reached relative to the effects of home intervention on student achievement, an experimental program with a valid experimental design, involving programmatic intervention in the home environments of poor children, would have to be implemented.

The tentative nature of the results reported in this study cannot be overemphasized. This is an example of *ex post facto* cross-sectional research. What is important for the reader to understand is that achievement has two basic classes of components: those that the schools can modify, and those that they cannot. It is essential that educators and parents alike understand that there is some portion of a student's academic achievement, regardless of his ethnic background, that is amenable to environmental intervention. It is also important to realize, however, that only limited types of environmental manipulation are currently open to educators.

Additional Information:

74-243 Socioeconomic Profiles of School Communities in the DISD, 1974, Cordelia R. Alexander, 73 pages.

73-210 Research Design for the Socioeconomic Profiles of School Communities in the DISD, 1973, Cordelia R. Alexander, 14 pages.

73-196 Socioeconomic Profiles of School Communities in the Dallas Independent School District, 1973, Charles A. Hunter, (not in print).

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76-911

Abstract

A System-wide Exploration of Changes in Standardized Test Achievement-Differences Between Disadvantaged and Non-Disadvantaged DISD Students in Grade Levels Two through Eight

Evaluator: Michael R. Vitale

Objective and Design: This study investigated the relationship of school mean-percentile Iowa Test of Basic Skills (ITBS) subtest (Language Arts, Mathematics, Reading) scores to (a) the percentage of disadvantaged students enrolled in a given school and (b) grade-level in order to determine whether differences in achievement between disadvantaged and non-disadvantaged students increased as grade level increased. Through this approach to fitting the data using grade-within-school as the experimental unit, predicted achievement scores for schools having no disadvantaged students were compared at successive grade levels to those for schools having a large number (eg., 70%) of disadvantaged students, with the two groups (0%, 70%) serving to represent the performance of a typical group of non-disadvantaged and disadvantaged students, respectively.

Sample and Analysis: The exploration was confined to grades 2 through 8, by obtaining available data (N=476) from all even-numbered grade levels in all DISD schools administered the Language Arts, Mathematics, and Reading ITBS subtests in fall, 1975. Grades 1, and grades 9 through 12 were excluded from consideration because the ITBS was not administered at those levels through the district's testing program and because it was felt that extrapolation of the findings to these levels was statistically unjustifiable, in contrast to the acceptable interpolation across grade levels in the range 2 through 8.

The specific evaluation question explored was as follows:

1. Did the ITBS achievement-differential between non-disadvantaged and disadvantaged students increase with grade level?

Results:

1. A statistical test of the interaction between grade-level and percentage of disadvantaged students in a given school was used to determine if the achievement differences between these two groups of students become larger as grade level increased. As Table 1 shows, only on the ITBS Mathematics subtest was this hypothesis found to hold. In Language Arts and Reading, therefore, the disparity between non-disadvantaged and disadvantaged students was found to be stable across grade levels. Table 2 presents the predicted mean-achievement percentiles for schools having no disadvantaged students (0%) and those having 70% disadvantaged students in order to provide a concrete illustration of the meaning of the statistical conclusions summarized in Table 1.

Two important factors should be kept in mind while interpreting these data. First, because of the fact that disadvantaged students (or schools having large percentages of them) tend to obtain extremely low scores, it is likely that a standardized test with a lower floor (i.e., that would differentiate between low-achieving students) would yield larger differences between the two groups of students with increasing grade levels. That is, there is, in effect, no opportunity for students obtaining very low scores in early grades to decrease their achievement scores because they are artificially supported. Second, the increase in achievement in grades 7 through 8 is likely due to withdrawal from school, a factor that may differentially occur in low-achieving disadvantaged students more than any others. This also would tend to increase the achievement level of schools having large percentages of disadvantaged students compared to those having few. The approach taken here then should be considered a conservative one in light of these considerations. In the case of mathematics, there is certainly an increasing achievement disparity between disadvantaged and non-disadvantaged students in the DISD. However, in the case of Language Arts and Reading, while the data presented here argue for stable and consistent differences across grade levels, a more intensive inventigation with more sensitive achievement measures could potentially reveal meaningful differences.

Table 1

Statistical Tests of Grade and Percentage of Disadvantaged Students Interaction

ITBS Achievement Area	Obtained F-Value	P-Value
Language Arts	F (2,470) = 0.53	N.S.(1)
Mathematics	F (2,470) = 7.15	Significant*
Reading	F (2,470) = 0.64	N.S.
Total(2)	F (2,470) = 0.78	N.S.

* P < .05

(1) N.S. = Not statistically significant at .05 level

(2) Total = Average of Language Arts, Mathematics, and Reading Percentiles

Table 2

Predicted School Mean-Percentile ITBS Achievement

ITBS Achievement Area	Percentage of Disadvantaged Students	Grade						
		2	3	4	5	6	7	8
Language Arts	0	61.5	58.4	55.4	52.6	49.9	47.3	44.9
	70	21.4	16.7	13.0	10.3	8.7	8.1	8.6
	(Difference)	40.1	41.7	42.4	42.3	41.2	39.2	36.3
Mathematics	0	55.1	51.3	48.2	45.9	47.3	43.5	43.5
	70	28.0	18.8	11.9	7.1	4.6	4.2	6.1
	(Difference)	27.1	32.5	36.3	38.8	39.7	39.3	37.4
Reading	0	69.6	63.0	58.0	54.3	52.2	51.6	52.4
	70	28.0	23.4	19.3	15.7	12.5	9.8	7.6
	(Difference)	41.6	39.6	38.7	38.6	39.7	41.8	44.8
Total (LA, M, RD.)	0	62.1	57.6	53.9	50.9	48.8	47.5	46.9
	70	25.8	19.7	14.7	11.1	8.6	7.4	7.4
	(Difference)	36.3	37.9	39.2	39.8	40.2	40.1	39.5

Abstract

Enrollment Trends 1968-1976

Analyst: Kevin van Noppen

Purpose of the Evaluation: This analysis is intended to define significant changes within district and subdistrict student population and ethnic composition by grade level and relative changes within surrounding school districts.

Design: The construction of the data file was accomplished by sorting the H.E.W. files from 1968 through 1976 with a definitive T.E.A. listing. The T.E.A. listing is a composite of four separate T.E.A. files with subdistrict codes included. All "no matches" were corrected in the sorting. Each of the nine H.E.W. files has a creation date of October 15.

A listing of each grade by ethnicity and subdistrict for the period of 1968-1976 was programmatically extracted from the data file. The grade division was combined into four groups; kindergarten through third, fourth through sixth, seventh through eighth, and ninth through twelfth. The enrollment for each of the four grade categories was totaled and the percentage change across years was calculated. The percentage change within each grade category was averaged to yield an average annual percentage change. To observe the effect of the 1976-1977 school year on the previous trend the percentage change from 1975 through 1976 of each grade category is compared to its respective average annual percentage change. The total grade breakdown by ethnicity and subdistrict and cohort survival percentage is included in the table at the end. Subdistrict 7 denotes the total District.

Trends in suburban school districts are noted in the table "Suburban Enrollment Data" in the Appendix. Movements of ethnic enrollments within subdistricts and contiguous districts are charted on choroplethic maps for the years 1970, 1971, 1975, and 1976.

Question 1: By subdistrict, attendance area, and grade level what are the multi-year enrollment patterns that have emerged with regard to size and ethnic mix?

Question 2: Among subdistrict attendance areas and grade levels what comparisons can be made with regard to size and ethnic mix in enrollment trends?

Question 3: Between District and suburban enrollment trends what comparisons can be made with regard to size and ethnic mix?

Results: The interpretation of the enrollment trends must be premised by an understanding of the political, legal and social conditions that influence enrollment. Starting in 1971, subsequent to the 1970 desegregation order, no less than five thousand minority students per year from grades 7 through 12 were bussed district-wide. The bussing ceased in 1975 for all students with the exception of seniors who wished to graduate from the school they had been bussed to in 1975. Subsequent to the desegregation order of 1976, grades 4 through 8 of all ethnic backgrounds were bussed within their respective subdistricts. No bussing was required in the East Oak Cliff and Southwestern Subdistricts. District-wide bussing of all ethnic categories occurred in 1976 to facilitate the Academy, Vanguard and Magnet Schools. School attendance areas prior to 1971 could be changed at the discretion of the District to coincide with population shifts. Attendance areas were officially changed in 1971 and 1976 resultant from the court orders. In 1976 all high schools encompassed grades 9-12 and all junior high schools grades 7-8, with the exception of Seagoville whose high school and junior high school are combined for grades 7 through 12.

In the district as a whole, black and Mexican-American enrollments have increased and other enrollment decreased since 1968. Only four sectors of the analysis (black 9-12, Mexican-American K-3, Mexican-American 7-8, and Mexican-American 9-12) indicated an increase in enrollment between 1975 and 1976. None of the four increases were greater than their respective average percentage changes indicating a general slowing of these increasing trends. The most significant deviations between the 1975-76 percentage changes and the average annual percentage changes appear in the 4-6 and 7-8 grade level of other enrollment district-wide, as shown in Table 1.

Within the Northwestern Subdistrict all sectors of the analysis, with the exception of black 9-12 enrollment, have decreased. Over the period of 1968 to 1976 other enrollment has increased in all four groupings and black enrollment has increased in the K-3 and 9-12 groupings and decreased in the 4-6 and 7-8 sectors. The most significant deviations between the average annual percentage change occur in the black 7-8 cohort, Mexican-American 7-8 cohort, and the other 4-6 and 7-8 groupings, as shown in Table 1.

Within the Northeastern Subdistrict all Mexican-American grade groupings and black 7-8 and 9-12 show an increasing trend. The most significant percentage changes occur in the black 9-12 cohort and the other 4-6 and 7-8 enrollment groupings. Much of the large change in the 1975-76 9-12 grade cluster can be attributed to the special schools in Northeastern Subdistrict.

The Southeastern Subdistrict has shown a rising enrollment in all Mexican-American grade groupings and an increasing enrollment in all black enrollment groupings, with the exception of the 7-8 cohort. Other enrollment is following a decreasing trend. The most volatile grade groupings appear to be the black 4-6 and 9-12 grade groupings.

All factions except other enrollment are following an increasing trend in the Southwestern Subdistrict. Only the Mexican-American 7-8, other 7-8 and other 9-12 enrollments are showing a 1975-76 percentage change larger than their respective average annual percentage changes. This again gives an indication of a general leveling of enrollment trends. The most significant change in 1976 in Southwestern Subdistrict appears to be the large increase in the Mexican-American 7-8 grade category and the larger than average decreases in the other 7-8 and 9-12 categories.

The East Oak Cliff Subdistrict indicates only three increasing trends since 1968. These three were the K-3, 7-8, and 9-12 black cohorts. Oddly, all grade categories, with the exception of black K-3, 4-6, and Mexican-American 9-12, show a positive percentage change between 1975 and 1976. Both other 4-6 and 7-8 groupings increased two-fold.

Analysis of the relative proportions of grade cohorts can indicate basic shifts in enrollment patterns. Within the Northwestern Subdistrict black enrollment peaked in 1972 and is now following a decreasing trend as shown in Table 2. The decrease is distributed fairly evenly among all grade cohorts, with the exception of the seventh through eighth grade cohort which lost two percentage points between 1975 and 1976. The Mexican-American enrollment in the Northwestern Subdistrict has increased annually, except for a decrease of some four hundred students between 1975 and 1976. The decrease was distributed fairly evenly between all grade cohorts. The majority of the increase between 1968 and 1975 can be attributed to increases within the kindergarten through third grade cohort as indicated in Table 2. Other enrollment, after peaking in 1969, has decreased annually throughout the analysis. Much of the loss appears to have occurred within the fourth through sixth grade cohort.

Black enrollment in the Northeastern Subdistrict has been following an increasing trend during the analysis. It is interesting to note the leap in the ninth through twelfth grade cohort resultant from the enrollment in the Magnet schools. Mexican-American enrollment in the Northeastern Subdistrict has shown an increasing trend from 1968 through 1976. Much of the increase can be attributed to increases within the ninth through twelfth grade cohort. Other enrollment in the Northeastern Subdistrict has been decreasing annually since 1968. Again the fourth through the sixth grade cohort bore a majority of the decrease.

Black enrollment in the Southeastern Subdistrict decreased only between 1975 and 1976. Most of the decrease occurred within the ninth through twelfth grade cohort. Mexican-American enrollment in the Southeastern Subdistrict has followed an increasing trend throughout the analysis. The relative proportion of Mexican-American students in the ninth through twelfth grade cohort for 1976 was three percentage points higher than its enrollment in 1975. This increase is mostly resultant from an increase in the quantity of students enrolled in secondary schools in 1976. Other enrollment within the Southeastern Subdistrict has declined annually after reaching a zenith in 1969. The kindergarten through third grade cohort appears to be the most volatile grade grouping.

The black student population within the Southwestern Subdistrict was increased greatly from 1968 through 1976. The majority of the growth occurred in the ninth through twelfth grade cohort as suggested by the increasing proportions occupied by the secondary school enrollment shown in Table 2. Mexican-American enrollment in the Southwestern Subdistrict has more than doubled since 1968. Most of the increase has taken place in the middle and secondary schools. Other enrollment after an increase of almost one percent between 1968 and 1969 has decreased through 1976. The largest proportional decrease was in the fourth through sixth grade cohort.

Black enrollment in the East Oak Cliff Subdistrict has increased by some twelve percent since 1968. Most of the increase in enrollment is distributed within the middle and secondary schools. Mexican-American enrollment in East Oak Cliff has decreased since 1969. Table 2 indicates that proportionately most of this occurred in the secondary schools. Other enrollment in the East Oak Cliff Subdistrict has followed a decreasing trend during the analysis. There was an increase in other enrollment in 1976 originating in the fourth through sixth grade cohort. The elementary schools carried the weight of most of the decrease.

In order to fully understand enrollment trends many perspectives are required. In the District as an entity other enrollment has been decreasing since 1968. Black enrollment has shown an increase since 1968. Black enrollment became larger than other enrollment between 1974 and 1975. Mexican-American enrollment has shown a steady increase since 1968. Movements of enrollment within the District as a whole are depicted on "Graph #1."

Enrollment in the Northwestern Subdistrict for all ethnic categories decreased in 1976. Other enrollment experienced a sharp drop after 1970 which continued through 1976. Black enrollment after peaking in 1972 decreased through 1976. Mexican-American enrollment reached a high point in 1975 and followed a mild decrease between 1975 and 1976. Total enrollment in the Northwestern Subdistrict can be observed on "Graph #2."

Ethnic enrollments in the Northeastern Subdistrict are in the same proportions as those in the Northwestern Subdistrict. Other enrollment is and has been the largest ethnic factor throughout the analysis. An abrupt change in the slope of the declining other enrollment line is evident at the 1970 point. Black enrollment is the second largest ethnic faction in the Northeastern Subdistrict. The increase in black enrollment between 1975 and 1976 is easily observed on "Graph #3." This increase is partially due to the opening of the Magnet schools. Mexican-American enrollment steadily increased throughout the analysis.

Other enrollment in the Southeastern Subdistrict remained the largest ethnic category throughout the analysis. Other enrollment as shown in "Graph #4" decreased after 1969, black enrollment appears to have neared a leveling point between 1972 and 1975. Between 1975 and 1976 black enrollment decreased in the Southeastern Subdistrict. Mexican-American enrollment followed an annual increase through 1976.

The Southwestern Subdistrict experienced a sharp decline in other enrollment in 1970. The decline in other enrollment appeared to level off as indicated in "Graph #5." Mexican-American enrollment in the Southwestern Subdistrict followed a moderate rate of increase through 1976. Black enrollment in the Southwestern Subdistrict experienced a noticeable increase after 1970.

The East Oak Cliff Subdistrict experienced a leveling of its black enrollment as shown in "Graph #6." Both Mexican-American and other enrollment in the East Oak Cliff Subdistrict decreased slightly during the analysis period.

To analyze how each ethnic grade cohort is affected by district-wide influences they must be compared with one and another. Black enrollment for the kindergarten through third grade cohort is plotted on "Graph #7." Black enrollment in this cohort nearly leveled off with the exception of the Southwestern Subdistrict which indicated an increase after 1971.

Black enrollment in the fourth through sixth grade cohort is displayed on "Graph #8." The East Oak Cliff school population in this grade cohort decreased after its peak in 1972. The black fourth through sixth grade enrollment in the Northwestern Subdistrict decreased steadily after 1969. The Northeastern Subdistrict followed a decreasing trend till its upsurgence in 1976. The Southeastern Subdistrict moved erratically till 1972, leveled out between 1972 and 1975 and declined in 1976. Black fourth through sixth grade enrollment in the Southwestern Subdistrict experienced a sharp increase after 1971, making it the third largest faction in the fourth through sixth grade black enrollment.

Black enrollment for the seventh through eighth grade cohort is displayed on "Graph #9." As in all other black enrollments the East Oak Cliff Subdistrict consistently remained the largest entity. The East Oak Cliff Subdistrict was relatively stable till 1976 when it increased by some six hundred students. The Southeastern Subdistrict increased slightly after 1972. Both the Northwestern and Southwestern Subdistricts experienced a decrease between 1975 and 1976 in their black seventh through eighth grade enrollments. The Northeastern Subdistrict had a steady increase in black seventh through eighth grade enrollment throughout the analysis.

Black enrollment at the secondary level can be observed on "Graph #10." Black high school enrollment increased in two subdistricts. The East Oak Cliff Subdistrict experienced a sharp increase over an already increasing trend. The Northeastern Subdistrict's black high school enrollment also increased due to the location of the Magnet schools in that subdistrict. The Southwestern, Southeastern, and Northwestern Subdistricts all lost black high school students in 1976.

Mexican-American enrollment in the kindergarten through third grade cohort followed an increasing trend within all subdistricts as shown on "Graph #11." The Southwestern and Northwestern Subdistricts indicated the greatest rate of increase. The Northwestern Subdistrict experienced a mild decline between 1975 and 1976. The Northeastern, Southeastern, and East Oak Cliff Subdistricts all followed a mildly increasing trend between 1968 and 1976. Movement of the Mexican-American fourth through sixth grade cohort almost mirrored the respective changes within the kindergarten through third grade cohort. Mexican-American enrollment in the fourth through sixth grade cohort is tracked on "Graph #12."

Mexican-American enrollment at the junior high level was basically stable throughout the analysis time frame. Southwestern junior high school enrollment followed a mildly increasing trend between 1968 and 1976 as seen on "Graph #13."

Mexican-American enrollment at the high school level proved to be fairly stable from 1968 through 1976. Enrollment in the Southwestern Subdistrict increased after 1970 to the point of becoming the subdistrict with the highest Mexican-American high school enrollment in the District in 1976. Enrollment in the Northeastern Subdistrict jumped approximately two hundred and fifty students between 1975 and 1976. As indicated in "Graph #14" the Northwestern and East Oak Cliff Subdistricts have changed little during the period from 1968 through 1976. Enrollment in the Southeastern Subdistrict increased slowly during the analysis period.

Other enrollment for the kindergarten through third grade cohort moved basically in unison with the slow but steady decline in the East Oak Cliff Subdistrict. The Northeastern, Northwestern, Southwestern, and Southeastern Subdistricts all declined subsequent to 1969. A definite leveling point occurred in 1972 where the North and Southeastern Subdistricts even experienced a mild growth in enrollment. The movements of the kindergarten through third grade cohort can be viewed on "Graph #15."

Other enrollment for the fourth through sixth grade cohort moved similarly to the movement of the kindergarten through third grade enrollment, with the exception that there was not a visible slowing of decline in 1972. The East Oak Cliff Subdistrict appeared to level off as shown on "Graph #16."

Other enrollments within the junior high schools moved in unison as did the previous other enrollments. The slope of decline in the middle schools was less than that experienced within the primary schools. Junior high school enrollment in East Oak Cliff followed a slowly decreasing trend after 1968. Other enrollment in the middle schools is displayed on "Graph #17."

Other enrollment within the secondary schools was more widely distributed between subdistricts than the enrollment within the middle and primary schools, as shown on "Graph #18." The Northwestern, Southeastern, and Southwestern Subdistricts all encountered a decline in enrollment subsequent to 1970. The Northeastern Subdistrict peaked in 1971 and began a decline in enrollment which indicated signs of leveling in 1974. The Northeastern Subdistrict became the largest other secondary enrollment in 1975 and had only twenty-seven fewer students in 1975 than in 1976. Secondary enrollment in the East Oak Cliff Subdistrict remained less than three hundred and twenty students between 1968 and 1976.

The comparisons of ethnic grade cohorts indicates how various subdistricts moved over time. In order to view how different ethnicities have changed within subdistricts another set of comparisons is required.

Enrollment in the Northwestern Subdistrict for the kindergarten through third grade cohort is plotted on "Graph #19." Other enrollment after a sharp decline in 1970 leveled off between 1972 and 1974. Other enrollment after 1974 fell at a rate similar to its rate of decline between 1970 and 1971. Black enrollment after a 1972 peak year dropped slowly through 1976. Mexican-American kindergarten through third grade enrollment followed a gradually increasing trend between 1968 and 1976.

Fourth through sixth grade enrollment in the Northwestern Subdistrict is displayed on "Graph #20." Other enrollment in the fourth through sixth grade cohort sharply decreased between 1970 and 1976. Black enrollment followed a decreasing trend after its high point in 1969. Mexican-American fourth through sixth grade enrollment in the Northwestern Subdistrict remained fairly stable during the time frame of the analysis.

Middle school enrollment in the Northwestern Subdistrict can be observed on "Graph #21." Other enrollment increased at a steady rate after 1970. Both black and Mexican-American enrollment remained steady between 1968 and 1976, with the exception of a drop in black enrollment between 1975 and 1976.

Secondary school enrollment within the Northwestern Subdistrict is plotted on "Graph #22." Other enrollment at the high school level declined similarly to all other grade cohorts in the Northwestern Subdistrict. Black and Mexican-American enrollment both experienced a mild increase in enrollment within the confines of the analysis.

Kindergarten through third grade enrollment within the Northeastern Subdistrict is depicted on "Graph #23." Other enrollment for the kindergarten through third grade cohort declined from 1968 through 1972 and indicated a general leveling trend through 1976. Black enrollment declined between 1975 and 1976 after establishing a fairly stable enrollment pattern between 1969 and 1975. Mexican-American enrollment in the Northeastern Subdistrict increased more than two-fold between 1968 and 1976.

Enrollment of the fourth through sixth grade cohort within the Northeastern Subdistrict is tracked on "Graph #24." Other enrollment for the fourth through sixth grade cohort followed a decreasing trend from 1969. Black enrollment in the Northeastern Subdistrict, which appeared to be generally declining, experienced an increase of some three hundred students between 1975 and 1976. Mexican-American enrollment increased slightly after 1968.

Middle school enrollment for the Northeastern Subdistrict can be viewed on "Graph #25." Other enrollment within the middle schools decreased steadily between 1968 and 1976. Both Mexican-American and black enrollment increased between 1968 and 1976.

Secondary school enrollment for the Northeastern Subdistrict is diagrammatically presented on "Graph #26." Other enrollment after a peak year in 1971 decreased through 1975. An apparent leveling of other enrollment occurred between 1975 and 1976. Black high school enrollment followed a slowly increasing trend through 1975 and experienced a large jump in enrollment in 1976, resultant from the opening of the Magnet schools. Mexican-American enrollment remained fairly constant from 1971 through 1976.

Kindergarten through third grade ethnic enrollments within the Southeastern Subdistrict are compared on "Graph #27." Other enrollment in the kindergarten through third grade cohort followed a relatively slow decline between 1968 and 1976. Both black and Mexican-American enrollment experienced a mild increase during the analysis time frame.

Fourth through sixth grade enrollment from the Southeastern Subdistrict is displayed on "Graph #28." Other enrollment after peaking in 1969 steadily decreased through 1976. Black enrollment in the Southeastern Subdistrict appeared to be leveling between 1972 and 1975, but lost some six hundred students in 1976. Mexican-American enrollment steadily increased between 1968 and 1976.

Middle school enrollment within the Southeastern Subdistrict is depicted on "Graph #29." Other enrollment in the Southeastern Subdistrict declined steadily after 1970. Black junior high school enrollment moved erratically through 1972 and followed a slowly increasing trend between 1972 and 1976. Mexican-American enrollment was increased slowly throughout the analysis.

High school enrollment within the Southeastern Subdistrict is displayed on "Graph #30." Other enrollment after a small increase between 1969 and 1970 decreased through 1976. Black enrollment followed an increasing trend till 1971. Between 1972 and 1975 marginal growth occurred ending with a decline in black enrollment in 1976. Mexican-American enrollment followed an increasing trend through 1976.

Enrollment for the kindergarten through third grade cohort within the Southwestern Subdistrict is shown on "Graph #31." Other enrollment for the kindergarten through third grade cohort decreased sharply through 1972 and leveled somewhat through 1976. Mexican-American and black enrollment both increased steadily after 1971.

Enrollment for the Southwestern Subdistrict for grades four through six is plotted on "Graph #32." Other enrollment dropped after 1970. Black and Mexican-American enrollment both rose between 1968 and 1976.

Middle school enrollment within the Southwestern Subdistrict is depicted on "Graph #33." Other enrollment followed a mildly decreasing trend during the analysis. Black enrollment followed an increasing trend till 1975 when it experienced a decline. Mexican-American enrollment increased steadily between 1968 and 1976.

High school enrollment within the Southwestern Subdistrict is displayed on "Graph #34." Other enrollment within the Southwestern Subdistrict decreased erratically between 1968 and 1976. Black and Mexican-American enrollment both increased during the period from 1968 through 1976. Black enrollment, however, decreased between 1975 and 1976.

Kindergarten through third grade enrollment within the East Oak Cliff Subdistrict is shown on "Graph #35." All ethnic factions remained relatively stable for the period of 1968 through 1976.

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Enrollment within the East Oak Cliff Subdistrict for grades four through six is charted on "Graph #36." Black enrollment after peaking in 1972 declined through 1976. Other and Mexican-American enrollment decreased slowly between 1968 and 1976.

Junior high school enrollment within the East Oak Cliff Subdistrict is displayed on "Graph #37." Black enrollment moved erratically during the analysis but increased between 1968 and 1976. Other and Mexican-American enrollment followed a decreasing trend through 1976.

High school enrollment in the East Oak Cliff Subdistrict is plotted on "Graph #38." Black enrollment increased by some 4200 students between 1968 and 1976. Other and Mexican-American enrollment decreased slightly during the time frame of the analysis.

Enrollment patterns of contiguous suburban school districts, as depicted on "Graph #39" through "Graph #50," help provide a basis for the comparison of suburban and district enrollment trends. Caution must be used in correlating changes in district trends to suburban trends. An increase in enrollment in a suburban district may be altogether independent of a change in district enrollment. Analysis of trend irregularities which occurred circa 1971 and 1976 in suburban school districts could possibly underline the impact of the desegregation order upon suburban school districts. Only two contiguous suburban school districts indicated a significant change in enrollment during the impact periods of the desegregation orders.

Both Grand Prairie ("Graph #45") and Garland ("Graph #46") school districts experienced an increase in the slope of their already increasing other enrollment between 1969 and 1970. It is quite possible that the change in slope was partially resultant from the anticipation of the desegregation order of 1971.

Graphs do little to indicate changes in density or distribution. The mapping section at the end of the report highlights changes in ethnic distributions between contiguous districts and the five subdistricts. The map of the District was approximated by grouping census tracts to approach subdistrict boundaries. The key to the left of the map indicates the population intervals associated with each density level. The frequency column lists the quantity of census tracts in each density level. Only four maps for each ethnicity were developed. The years 1970, 1971, 1975, and 1976 were chosen as the mapping years due to their proximity to the desegregation orders.

In viewing the changes in Mexican-American enrollment distributions it is easy to see the pattern of growth. The distribution of Mexican-American students in D.I.S.D. has widened since 1970. The Southwestern Subdistrict received a growing proportion of students through 1975. It appears that the Northeastern Subdistrict will be the area of Mexican-American growth in the future. Suburban school districts to the north and west of D.I.S.D. show a mild increase in Mexican-American students between 1970 and 1976.

Black enrollment, even though it increased between 1970 and 1976, indicated little difference in distribution between years. Only the Southwestern Subdistrict had a larger than proportional increase in enrollment. The implication is that basically all black populations are fluctuating in unison.

Other enrollment in 1970 was proportionately largest in the Northwestern, Southwestern, and Northeastern Subdistricts. Richardson and those districts to the northwest of D.I.S.D. also had a high other enrollment. In 1971 other enrollment dropped district-wide but there was not a noticeable increase in other enrollment in any contiguous school district. The school districts to the northwest of D.I.S.D. also experienced a decrease in other enrollment. Between 1975 and 1976 the only noticeable change in the distribution of other students occurred in the Southeastern Subdistrict. The implication of these changes is that no suburban school district experienced an increase in other enrollment proportional to the decrease of other students in D.I.S.D.

In conclusion each ethnic category will be addressed in a synergistic manner. Mexican-American enrollment has followed a slow but steadily increasing trend between 1968 and 1976. Black enrollment after following a rapidly increasing trend between 1968 and 1974 indicated a levelling through 1976. Other enrollment presents a much more abstract picture of change between 1968 and 1976. Basically other enrollment has decreased from 1970 through 1976. The decrease in general follows the national trend of other enrollments within metropolitan areas. Of special interest is that most of the decrease has been centered around the fourth through sixth grade cohort and generally the ninth through twelfth grade cohort has increased relative to the other grade cohorts. After considering the fact that suburban districts have generally not gained other students proportional to the loss in D.I.S.D. questions are raised as to the disposition of those students who are unaccounted for. It is quite possible that private institutions absorbed a portion of the loss in the fourth through eighth grade cohort. The abnormally high ninth grade cohort could be explained by the return of students to public schools at the high school level.

The combination of general urban maturation and the fluctuation of student enrollment consequent to political and legal considerations helps explain enrollment trends within D.I.S.D.

Table 1

Comparison of Subdistrict Percentage Changes

Average Annual Percentage Change			1968-76 Percentage Change	1975-76 Percentage Change
DISTRICT WIDE				
BLACK	K-3	2.70%	+ 17.24%	- 2.65%
	4-6	4.79%	+ 5.95%	- 4.94%
	7-8	8.33%	+ 64.97%	- 1.24%
	9-12	9.41%	+101.00%	+ 8.34%
MEX-AM	K-3	7.31%	+ 74.68%	+ 2.71%
	4-6	4.19%	+ 38.38%	- .04%
	7-8	6.47%	+ 63.60%	2.77%
	9-12	8.30%	+ 77.12%	6.98%
OTHER	K-3	7.46%	- 39.21%	- 4.54%
	4-6	10.25%	- 56.15%	-14.94%
	7-8	7.92%	- 47.13%	-12.61%
	9-12	6.24%	- 36.03%	- 5.91%
SUBDISTRICT 1			NORTHWEST	
BLACK	K-3	6.06%	+ 4.44%	- 8.7%
	4-6	7.69%	- 3.39%	- 7.07%
	7-8	4.90%	- 19.51%	-18.25%
	9-12	2.99%	+ 24.17%	+ 1.22%
MEX-AM	K-3	5.66%	+ 41.43%	-11.32%
	4-6	4.32%	+ 11.87%	- 3.94%
	7-8	4.85%	+ 10.51%	- 9.69%
	9-12	6.24%	5.33%	- 5.86%
OTHER	K-3	7.22%	- 44.89%	- 4.32%
	4-6	10.34%	- 59.07%	-20.10%
	7-8	8.12%	- 49.87%	-17.65%
	9-12	6.06%	- 36.56%	- 8.03%
SUBDISTRICT 2			NORTHEAST	
BLACK	K-3	6.58%	- 2.13%	-11.81%
	4-6	10.57%	- 13.16%	+22.68%
	7-8	7.67%	+ 62.75%	+ 6.52%
	9-12	17.95%	+173.23%	+85.15%
MEX-AM	K-3	12.38%	+125.16%	+ 1.76%
	4-6	8.92%	+ 78.44%	- 4.18%
	7-8	10.85%	+117.43%	+ 5.73%
	9-12	38.58%	+341.26%	+29.90%
OTHER	K-3	7.63%	- 37.45%	- 2.29%
	4-6	9.45%	- 55.22%	-16.26%
	7-8	7.41%	- 46.45%	-14.47%
	9-12	5.33%	- 8.61%	- 0.58%

Table 1 (continued)

Average Annual Percentage Change			1968-76 Percentage Change	1975-76 Percentage Change
SUBDISTRICT 3			SOUTHEAST	
BLACK	K-3	4.38%	+ 31.06%	+ 1.58%
	4-6	25.73%	+ 13.91%	- 23.04%
	7-8	10.58%	- 5.48%	- 0.66%
	9-12	21.12%	+ 88.19%	- 22.55%
MEX-AM	K-3	12.02%	- 140.00%	+ 0.16%
	4-6	21.97%	+ 89.08%	- 4.83%
	7-8	14.82%	+ 147.22%	- 0.84%
	9-12	14.38%	+ 182.60	+ 16.66%
OTHER	K-3	4.27%	- 23.30%	- 3.95%
	4-6	11.54%	- 45.15%	- 12.
	7-8	7.80%	- 27.19%	- 4.92%
	9-12	6.54%	- 38.34%	- 4.47%
SUBDISTRICT 4			SOUTHWEST	
BLACK	K-3	51.95%	+ 766.24%	+ 20.80%
	4-6	58.85%	+ 763.52%	+ 15.19%
	7-8	81.86%	+3331.91%	- 20.42%
	9-12	133.38%	+3600.00%	- 5.36%
MEX-AM	K-3	13.10%	+ 120.46%	+ 10.18%
	4-6	11.23%	+ 82.26%	+ 6.37%
	7-8	15.18%	+ 207.69%	+ 19.02%
	9-12	16.15%	+ 181.64%	+ 9.27%
OTHER	K-3	7.73%	- 43.92%	- 0.19%
	4-6	11.20%	- 66.36%	- 10.49%
	7-8	10.57%	- 57.68%	- 14.28%
	9-12	10.28%	- 55.65%	- 12.63%
SUBDISTRICT 5			EAST OAK CLIFF	
BLACK	K-3	2.63%	+ 0.15%	- 4.16%
	4-6	5.77%	- 11.69%	- 10.24%
	7-8	7.16%	+ 33.10%	+ 14.66%
	9-12	7.62%	+ 58.90%	+ 8.75%
MEX-AM	K-3	13.12%	- 37.01%	+ 16.57%
	4-6	12.12%	- 53.77%	+ 9.70%
	7-8	15.75%	- 57.92%	+ 2.98%
	9-12	16.15%	- 75.69%	- 27.08%
OTHER	K-3	30.34%	- 89.70%	+ 30.00%
	4-6	42.15%	- 87.86%	+103.44%
	7-8	42.36%	- 85.71%	+100.00%
	9-12	33.96%	- 79.68%	+ 3.17%

Table 2

Relative Proportions of Grade Cohorts Across Years by Ethnicity and Subdistrict

Subdistrict 1 NORTHWEST

Black

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	32%	24%	20%	24%	10503
1969	30%	28%	18%	24%	11727
1970	31%	27%	17%	25%	11845
1971	33%	25%	17%	25%	11785
1972	34%	24%	17%	25%	11947
1973	33%	24%	17%	26%	11825
1974	31%	25%	17%	27%	11303
1975	31%	23%	18%	27%	11295
1976	31%	23%	16%	30%	10466

Mexican-American

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	31%	27%	18%	24%	5788
1969	31%	27%	18%	23%	6467
1970	32%	27%	18%	23%	6515
1971	33%	28%	18%	21%	6523
1972	33%	27%	18%	22%	6600
1973	36%	26%	17%	20%	6893
1974	35%	26%	16%	22%	7247
1975	36%	25%	17%	21%	7303
1976	37%	25%	17%	21%	6902

Other

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	24%	25%	17%	33%	26282
1969	24%	25%	17%	34%	26364
1970	23%	25%	17%	34%	25974
1971	21%	24%	18%	36%	23125
1972	21%	25%	17%	37%	21140
1973	23%	24%	17%	37%	19601
1974	24%	22%	17%	36%	18159
1975	24%	21%	17%	37%	16162
1976	25%	19%	16%	40%	14038

Subdistrict 2 NORTHEAST

Black

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	39%	34%	09%	18%	7526
1969	42%	32%	09%	17%	8375
1970	41%	33%	09%	17%	8681
1971	43%	27%	13%	17%	7820
1972	43%	27%	12%	17%	7997
1973	41%	28%	12%	19%	7959
1974	42%	25%	13%	20%	7935
1975	40%	22%	13%	25%	8117
1976	29%	22%	11%	37%	9907

Table 2 (continued)

Subdistrict 2 Mexican-American

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	37%	31%	16%	15%	1230
1969	40%	29%	16%	15%	1594
1970	39%	33%	14%	14%	1715
1971	31%	25%	12%	31%	2237
1972	34%	28%	12%	25%	2287
1973	38%	27%	12%	22%	2398
1974	39%	26%	13%	21%	2705
1975	37%	26%	14%	23%	2780
1976	35%	23%	14%	28%	2983

Other

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	27%	27%	17%	29%	23504
1969	27%	27%	16%	30%	23073
1970	25%	26%	16%	33%	22970
1971	22%	25%	15%	38%	21554
1972	21%	24%	16%	39%	19817
1973	24%	23%	15%	38%	18938
1974	25%	22%	15%	37%	17654
1975	25%	21%	15%	39%	16220
1976	26%	19%	14%	41%	15180

Subdistrict 3 SOUTHEAST Black

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	38%	32%	05%	25%	5069
1969	25%	22%	25%	27%	7531
1970	26%	22%	24%	27%	7975
1971	22%	11%	27%	40%	9361
1972	25%	26%	18%	30%	8993
1973	27%	26%	18%	28%	9339
1974	26%	25%	19%	29%	9477
1975	25%	25%	18%	32%	9769
1976	29%	22%	21%	28%	8541

Mexican-American

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	32%	29%	18%	20%	789
1969	27%	40%	16%	17%	1018
1970	33%	28%	18%	20%	1026
1971	31%	30%	18%	21%	1375
1972	30%	28%	21%	21%	1588
1973	34%	28%	17%	21%	1727
1974	33%	26%	19%	21%	1795
1975	34%	25%	19%	21%	1809
1976	33%	23%	19%	24%	1856

Other

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	26%	26%	17%	31%	19582
1969	24%	30%	16%	29%	20039
1970	24%	25%	19%	31%	19357
1971	24%	26%	19%	30%	18124
1972	24%	27%	19%	30%	17096
1973	25%	23%	24%	28%	16806
1974	29%	23%	16%	29%	14966
1975	30%	23%	19%	29%	13743
1976	30%	21%	16%	29%	12931

Table 2 (continued)

Subdistrict 4 SOUTHWEST Black

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	46%	35%	07%	12%	689
1969	43%	25%	15%	18%	445
1970	31%	17%	28%	23%	633
1971	10%	08%	29%	53%	2461
1972	15%	11%	27%	46%	3905
1973	23%	17%	24%	36%	5469
1974	25%	19%	21%	35%	7657
1975	24%	20%	22%	34%	9296
1976	29%	22%	17%	32%	9463

Mexican-American

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	40%	32%	12%	17%	3136
1969	36%	28%	14%	22%	3166
1970	38%	30%	14%	19%	3533
1971	42%	28%	15%	20%	3949
1972	36%	27%	15%	22%	4590
1973	39%	26%	14%	21%	5313
1974	40%	26%	14%	20%	5996
1975	38%	26%	14%	21%	6502
1976	38%	25%	16%	20%	7170

Other

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	25%	25%	17%	32%	24823
1969	26%	26%	18%	31%	25034
1970	25%	25%	17%	32%	24549
1971	24%	25%	17%	33%	21298
1972	23%	26%	17%	33%	18601
1973	25%	24%	16%	34%	16841
1974	27%	24%	17%	32%	14293
1975	28%	22%	17%	32%	12476
1976	31%	22%	16%	31%	11366

Subdistrict 5 EAST OAK CLIFF Black

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	34%	32%	15%	18%	22556
1969	32%	29%	17%	22%	23489
1970	31%	29%	17%	23%	25343
1971	31%	31%	15%	22%	25090
1972	31%	31%	15%	23%	25979
1973	32%	29%	16%	23%	26142
1974	32%	28%	16%	23%	26117
1975	32%	28%	16%	24%	25274
1976	31%	25%	18%	26%	25347

Table 2 (continued)

Subdistrict 5

Mexican-American

Year	Proportion in K-3	Proportion in 4-6	Proportion in 7-8	Proportion in 9-12	Total Enrollment
1968	35%	33%	17%	15%	961
1969	37%	30%	19%	14%	1056
1970	37%	34%	18%	10%	843
1971	40%	32%	17%	12%	731
1972	38%	32%	17%	13%	618
1973	42$	30%	15%	12%	550
1974	42%	34%	14%	09%	512
1975	42%	31%	15%	11%	430
1976	46%	32%	15%	07%	462
Other					
1968	31%	30%	18%	20%	1605
1969	38%	33%	08%	20%	796
1970	36%	31%	19%	13%	477
1971	28%	28%	19%	25%	340
1972	20%	19%	18%	42%	287
1973	17%	17%	14%	52%	276
1974	19%	20%	12%	49%	258
1975	26%	19%	14%	41%	153
1976	24%	27%	19%	30%	218

Suburban Enrollment Data

	Ind	Blk	Orien	MexAm	Other	Total
Arlington						
68	22	383	13	329	19553	20300
69	13	420	21	430	21085	21969
70	18	473	26	512	21985	23014
71	29	499	37	583	22437	23585
72	40	529	42	716	23071	24398
73	49	607	56	812	24686	26210
74	42	605	74	846	25378	26945
75	58	714	144	917	26194	28027
76	105	782	211	182	26887	29067
Carrollton-Farmers Branch						
68	27	85	11	261	8386	8770
69	28	77	14	261	8719	9099
70	18	78	9	316	9118	9539
71	77	67	12	405	9187	9748
72	45	46	18	434	9682	10225
73	66	55	27	565	10556	11269
74	63	71	28	607	11042	11811
75	63	86	64	732	11149	12094
76	32	82	78	841	11350	12383
Cedar Hill						
68				5	27	32
69				14	667	681
70				19	696	715
71		3		51	820	874
72		6	2	64	893	965
73		19	5	71	1054	1149
74	6	23	4	72	1158	1263
75	16	28	5	70	1280	1399
76	8	33	5	63	1861	1476
Commerce						
68		235		10	1091	1336
69	3	236	1	9	1130	1379
70	3	262	4	11	1121	1401
71	2	291	1	15	1132	1441
72	3	285	3	16	1077	1384
73	2	296	9	6	1112	1425
74	1	292	6	11	1080	1390
75	1	288	11	8	1118	1426
76	1	296	12	13	1135	1454

Suburban Enrollment Data (continued)

	Ind	Blk	Orien	MexAm	Other	Total
Denton						
68	5	699	15	193	5946	6858
69	2	784	7	241	6311	7345
70	15	808	13	232	6605	7673
71	4	852	13	255	6726	7850
72	8	877	15	304	6728	7932
73	17	909	22	344	6920	8212
74	8	945	10	385	6885	8233
75	12	984	37	393	6747	8173
76	23	938	58	411	6632	8062
DeSoto						
68	2	3	1	31	1749	1786
69	1	3	1	23	1963	1991
70	3	4	1	30	2086	2124
71	4	9	5	22	2286	2326
72	6	7	5	38	2543	2599
73	5	10	8	77	2881	2981
74	8	9	6	69	3115	3207
75	4	17	9	90	3313	3433
76	7	16	11	64	3494	3592
Duncanville						
68		27	1	43	4010	4081
69		25	1	34	4252	4312
70	7	29	2	37	4569	4644
71	11	38	10	75	5057	5191
72	18	40	14	105	5479	5656
73	31	44	25	156	6074	6331
74	38	45	39	161	6456	6739
75	45	43	52	174	6548	6862
76	38	50	53	208	7018	7367
Ennis						
68	2	814		345	1941	3102
69		792	1	435	1958	3186
70	1	840		459	2060	3360
71		843		515	2074	3432
72		839		554	2032	3425
73	4	811		580	2132	3527
74	2	819		526	2122	3469
75		773		627	2150	3550
76		753		617	2136	3506

Suburban Enrollment Data (continued)

	Ind	Blk	Orien	MexAm	Other	Total
Euless-Hurst-Bedford						
68	14	113	9	143	14632	14911
69	17	134	31	154	15677	16013
70	18	129	34	164	16508	16853
71	37	106	34	248	16570	16995
72	56	112	28	321	16501	17018
73	119	108	28	337	17286	17878
74	92	110	51	348	17056	17657
75	49	103	68	339	16916	17475
76	81	104	83	419	16398	17085
Garland						
68	30	878	12	316	17899	19135
69	46	993	21	431	18153	19644
70	41	1131	28	554	19687	21441
71	68	1310	33	765	20332	22508
72	87	1526	38	936	20998	23585
73	106	1710	43	1199	22620	25678
74	119	1801	73	1338	23376	26707
75	111	1923	169	1512	24224	27939
76	112	1984	104	1621	25355	29176
Grand Prairie						
68	64	541	10	369	9063	10047
69	71	517	19	521	9343	10471
70	84	576	19	722	9834	11235
71	59	626	18	997	9936	11636
72	77	665	31	1310	9704	11787
73	102	700	42	1661	10105	12610
74	75	746	38	1852	10223	12934
75	83	769	59	2122	10210	13243
76	149	806	132	2209	10393	13689
Grapevine						
68	1	52	3	88	2220	2364
69	1	67	2	112	2442	2624
70	1	55	1	125	2468	2650
71	7	43	5	139	2705	2899
72	4	42	1	103	2665	2815
73	5	49		139	2889	3082
74	11	27		140	3016	3194
75	5	31		129	3176	3341
76	8	36		95	3269	3409

Suburban Enrollment Data (continued)

	Ind	Blk	Orien	MexAm	Other	Total
Greenville						
68		1204			4394	5593
69	10	1159	2	101	4300	5572
70	8	1233	3	99	4265	5608
71	11	1257	3	96	4053	5420
72	11	1324	7	86	3948	5376
73	4	1382	2	114	3784	5286
74	4	1352	2	108	3812	5278
75	4	1326	6	80	3860	5276
76	2	1365	7	124	3766	5264
Highland Park						
68					5284	5284
69					5196	5196
70					5183	5183
71					5088	5088
72			13	27	4712	4752
73	1		12	31	4576	4620
74	1		12	31	4576	4620
75	2	1	29	31	4596	4659
76	2	9	22	14	4567	4614
Irving						
68	36	470	32	631	21552	22721
69	54	529	43	729	22322	23677
70	62	491	43	876	22724	24196
71	102	496	31	1049	22472	24150
72	62	493	35	1222	22380	24192
73	149	468	70	1405	23104	25196
74	119	525	75	1573	22867	25159
75	183	530	161	1697	22531	25102
76	160	493	171	1599	22523	24946
Kaufman						
68		335		81	901	1317
69		325		94	921	1340
70		337	1	109	992	1439
71		348		120	1056	1524
72		337		131	1076	1544
73		314		141	1077	1532
74		316		158	1136	1610
75		318	2	170	1145	1635
76		302	8	185	1202	1697

Suburban Enrollment Data (continued)

	Ind	Blk	Orien	MexAm	Other	Total
Lancaster						
68		158		74	2383	2615
69		166	2	106	2479	2753
70	2	142	3	117	2621	2885
71	1	133	2	149	2671	2956
72	3	128	2	151	2616	2900
73	6	129	2	132	2632	3901
74	8	138	2	147	2591	2886
75	23	132	12	179	2564	2910
76	14	142	7	194	2560	2917
Lewisville						
68	7	150		24	2860	3041
69	10	130		63	3157	3360
70	5	145	2	84	3400	3636
71	11	156	5	147	3947	4266
72	35	177	11	162	4681	5066
73	28	221	19	211	5285	5764
74	35	209	13	233	5804	6294
75	33	213	16	259	6315	6836
76	35	187	31	288	6967	7508
McKinney						
68		455	3	515	2868	3841
69		504	3	516	2909	3932
70	3	569	2	545	2912	4031
71	5	536	2	514	2835	3892
72	5	535	3	584	2704	3831
73	4	562	7	598	2771	3942
74	5	559	5	632	2700	3903
75	2	571	9	645	2667	3894
76	6	582	12	671	2644	3915
Mesquite						
68	26	10	7	431	16169	16643
69	44	7	24	493	17120	17688
70	60	9	23	514	17637	18243
71	45	12	26	679	18034	18796
72	39	8	20	671	18394	19132
73	68	22	19	868	19198	20175
74	37	52	18	804	19062	19973
75	43	38	32	877	19140	20130
76	56	57	46	995	19030	20184

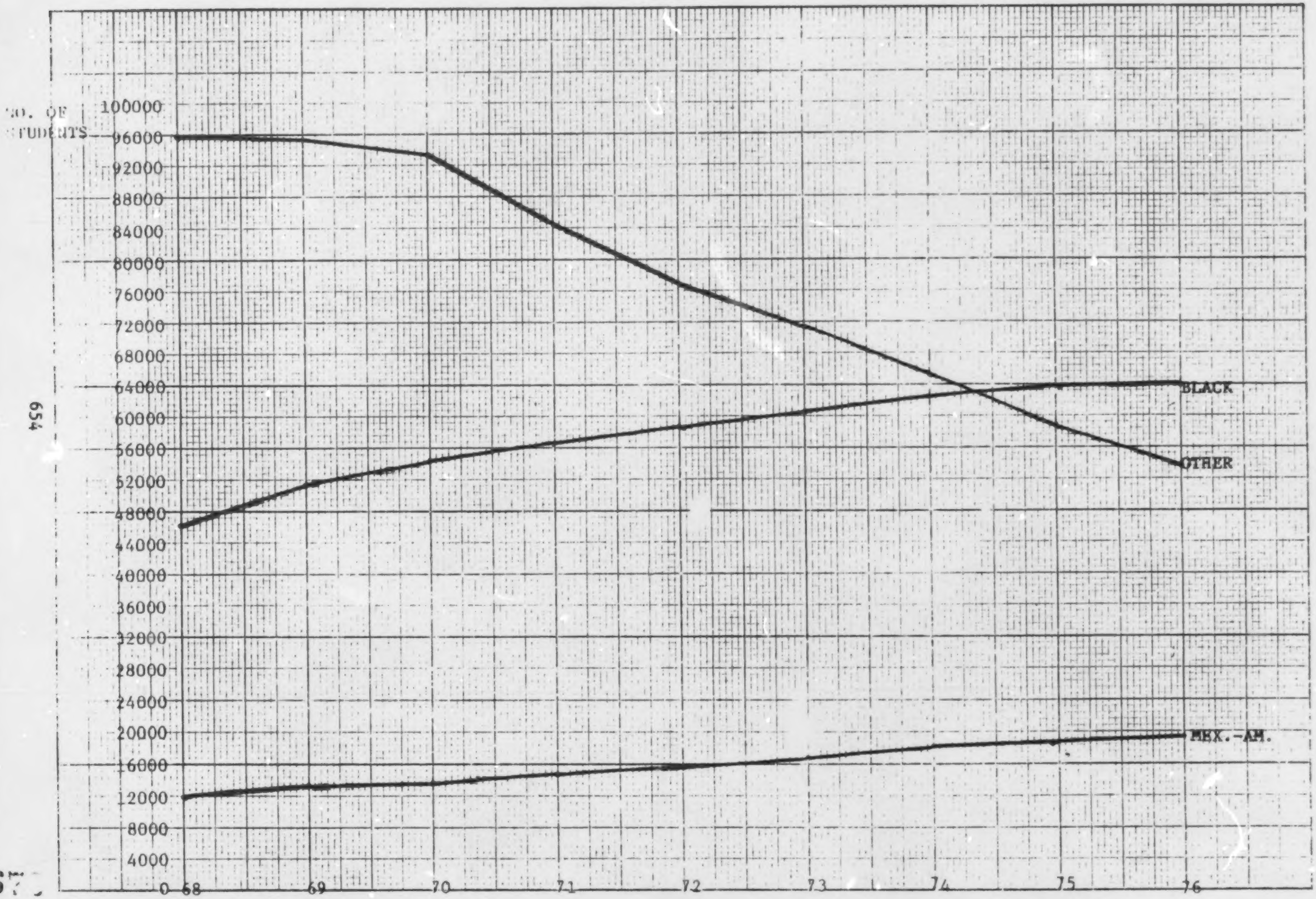
Suburban Enrollment Data (continued)

	Ind	Blk	Orien	MexAm	Other	Total
Plano						
68		275	1	98	3765	4139
69	5	260	8	134	4859	5266
70	7	285	17	152	5826	6287
71	9	349	20	166	7002	7546
72	10	373	17	227	8377	9004
73	11	416	26	237	10860	11550
74	11	438	34	316	12560	13359
75	15	457	72	312	14118	14974
76	12	482	52	329	16299	17174
Richardson						
68	6	1085	92	152	25023	26358
69	21	1049	45	194	27870	29179
70	49	1004	71	185	28802	30111
71	58	1025	63	254	29849	31249
72	65	995	83	340	30160	31643
73	64	1025	132	404	32020	33645
74	47	1054	138	435	32559	34233
75	51	1155	313	366	33403	35288
76	66	1335	389	475	34177	36445
Rockwall						
68		189		14	978	1181
69		196		13	1108	1317
70		192		16	1187	1395
71	1	187	1	12	1378	1579
72	1	194	2	18	1428	1643
73	1	205	2	18	1662	1888
74	1	202	1	27	1733	1964
75	7	195	2	30	1831	2065
76	6	206	5	33	1999	2249
Terrell						
68	2	1392	5	38	1807	3244
69		1384		34	1793	3211
70		1402	2	36	1827	3267
71	1	1493	1	44	1840	3379
72		1626	3	58	1820	3507
73	1	1537		45	1752	3335
74	3	1565	1	47	1800	3416
75	6	1495	1	60	1641	3203
76	5	1552	2	74	1724	3357

Suburban Enrollment Data (continued)

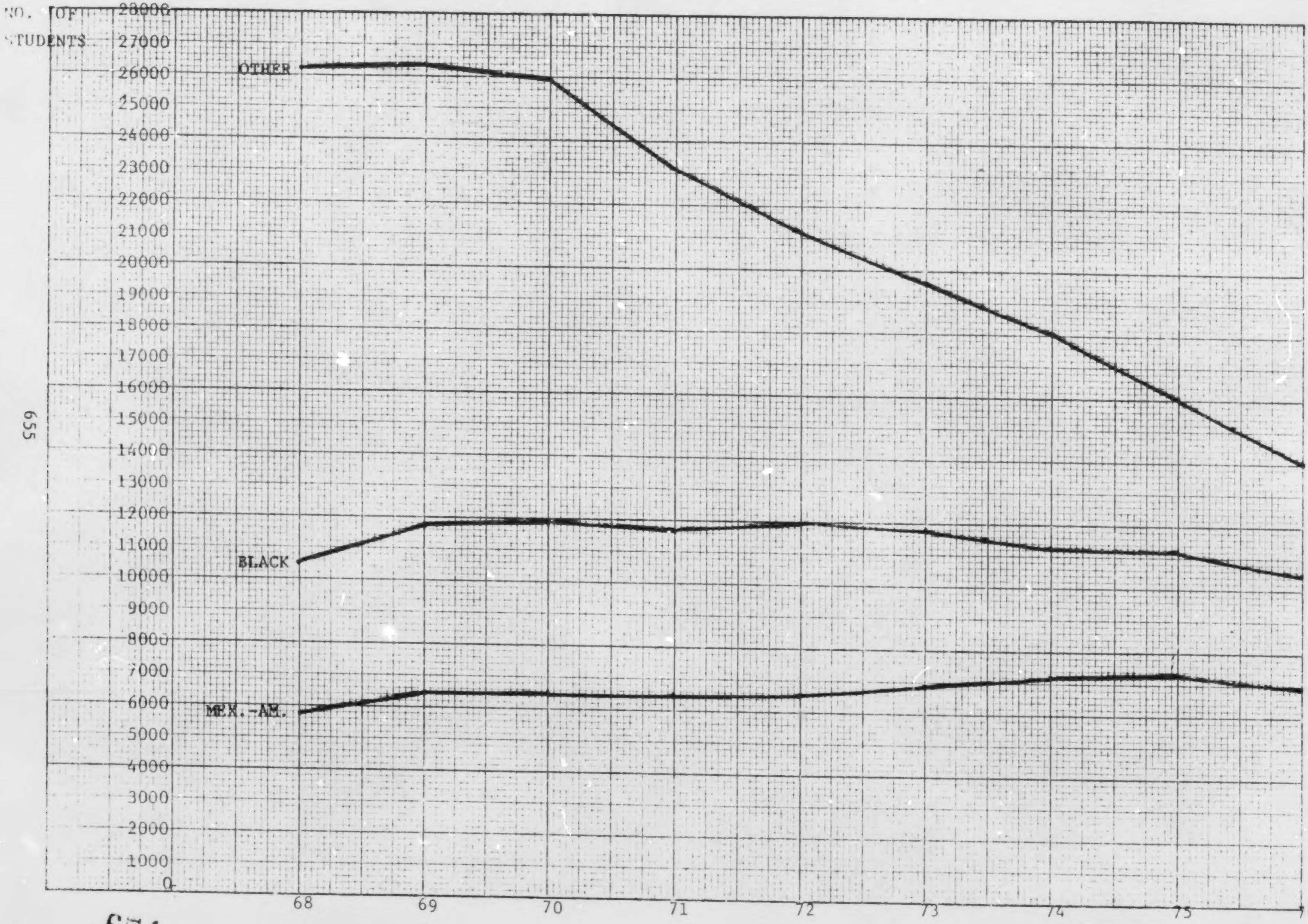
	Ind	Blk	Orien	MexAm	Other	Total
Waxahachie						
68	10	893		205	2225	3333
69	2	896		273	2352	3523
70	3	948		306	2350	3607
71	3	977	2	363	2435	3780
72	5	982	2	361	2388	3738
73	5	975	1	375	2385	3741
74	7	944		427	2362	3740
75	7	948		411	2358	3724
76	7	961		444	2394	3806
Wilmer-Hutchins						
68	11	2466	1	138	1728	4344
69	6	2716		146	1591	4459
70	1	2944		176	1315	4436
71	1	4094		211	995	5301
72		4428		179	744	5351
73	1	4670	1	191	503	5366
74	2	4389	2	227	441	5061
75	1	4451	6	228	418	5104
76	3	4371	2	234	444	5054
Wylie						
68	4	7		32	879	922
69	2	8	2	40	872	924
70	2	10	2	52	981	1047
71		8	2	56	1029	1095
72	1	8	2	53	1180	1244
73	2	7	2	48	1264	1323
74	2	8	2	55	1306	1373
75	1	6	2	70	1306	1385
76	1	6	2	58	1332	1399
TOTALS						
68	269	12919	216	4566	179333	197303
69	336	13377	248	5601	190549	210111
70	411	14096	307	6448	198759	220020
71	546	15758	326	7930	203946	228506
72	581	16582	397	9171	207981	234712
73	851	17251	561	10765	221188	250616
74	749	17244	634	11575	226216	256418
75	825	17595	1281	12528	230918	263147
76	939	17930	1503	12460	236782	269614

TOTAL DISTRICT ENROLLMENT FROM 1968-1976



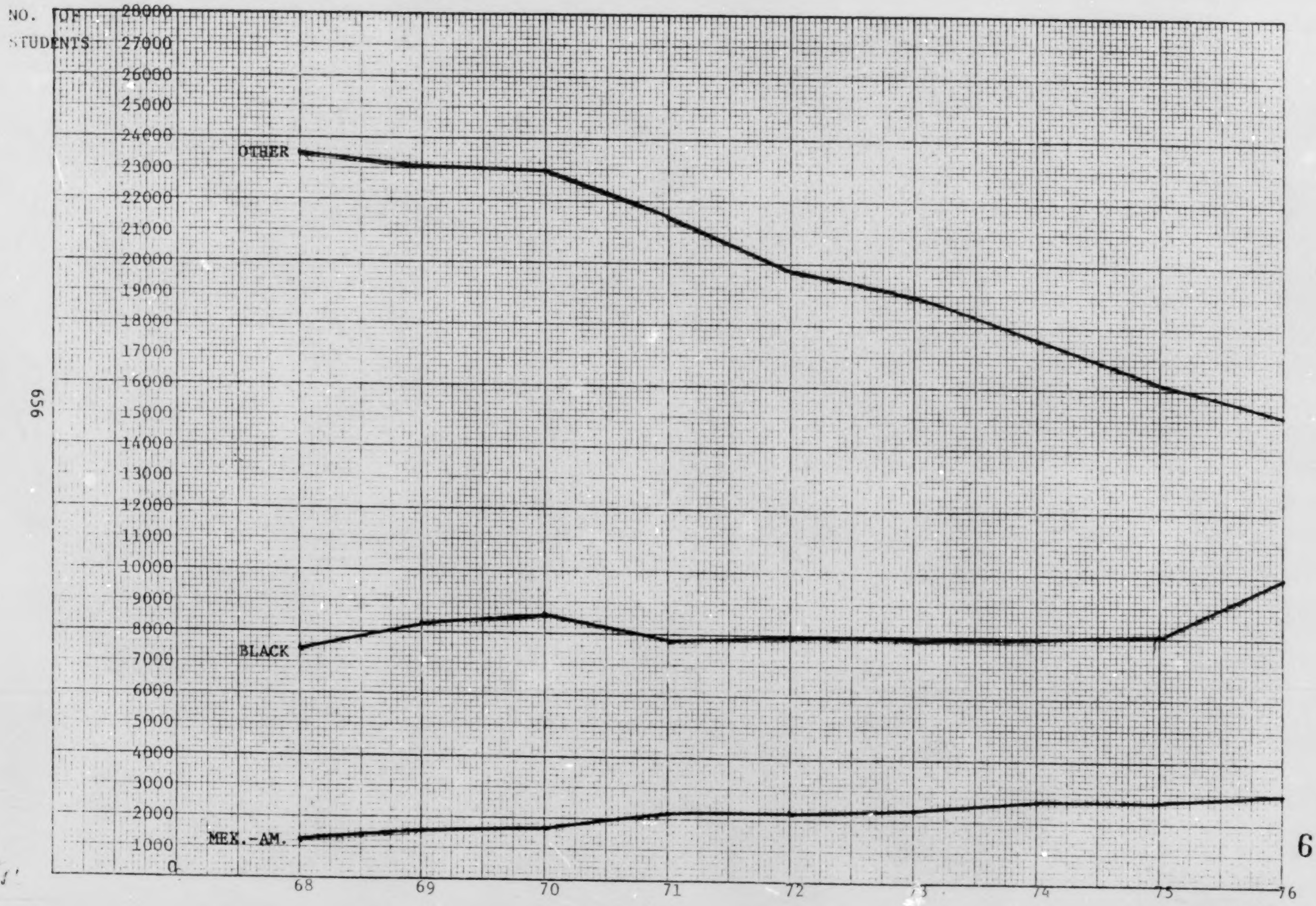
GRAPH#1

ENROLLMENT IN THE NORTH-WESTERN SUBDISTRICT



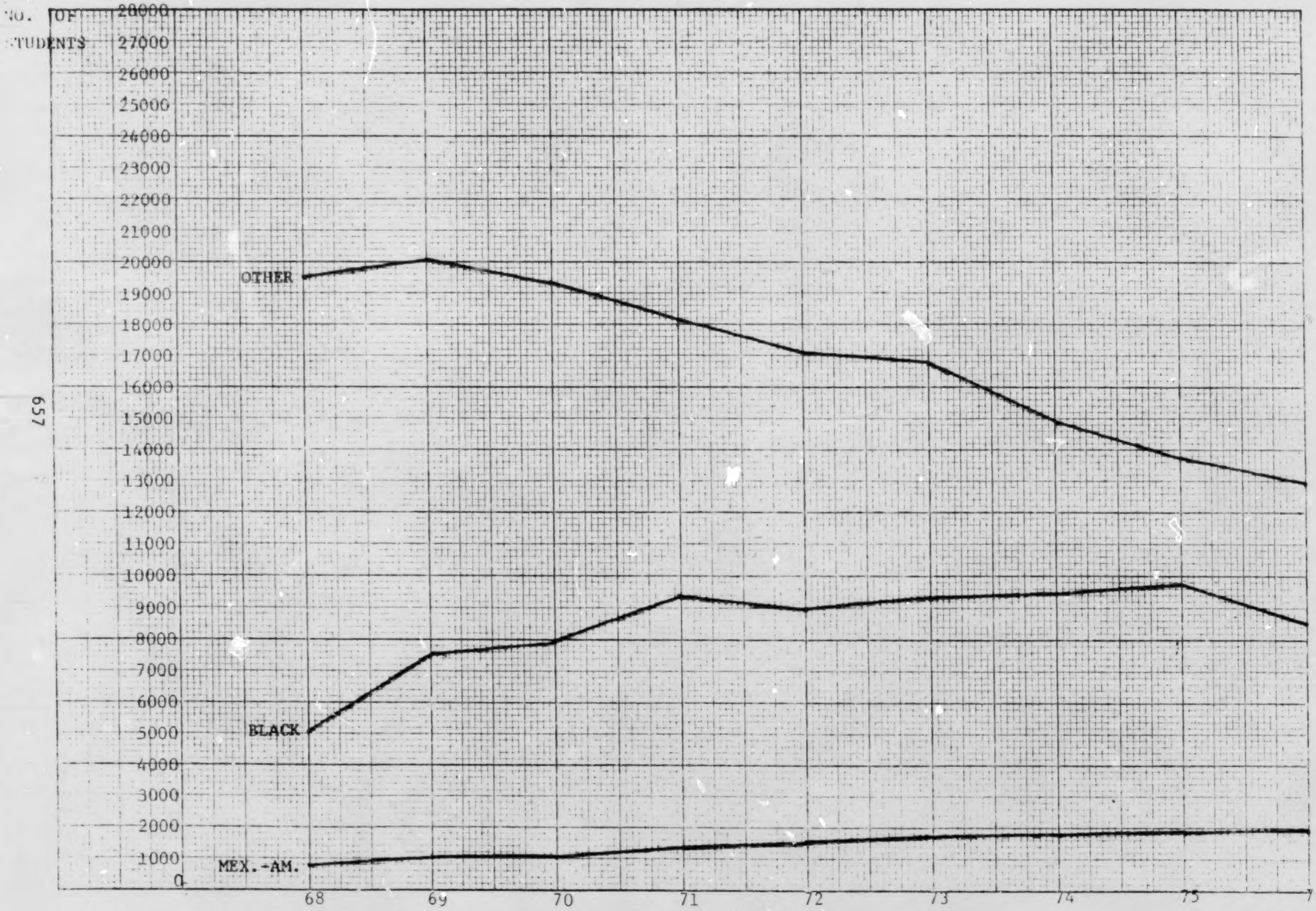
GRAPH#2

ENROLLMENT IN THE NORTH-EASTERN SUBDISTRICT



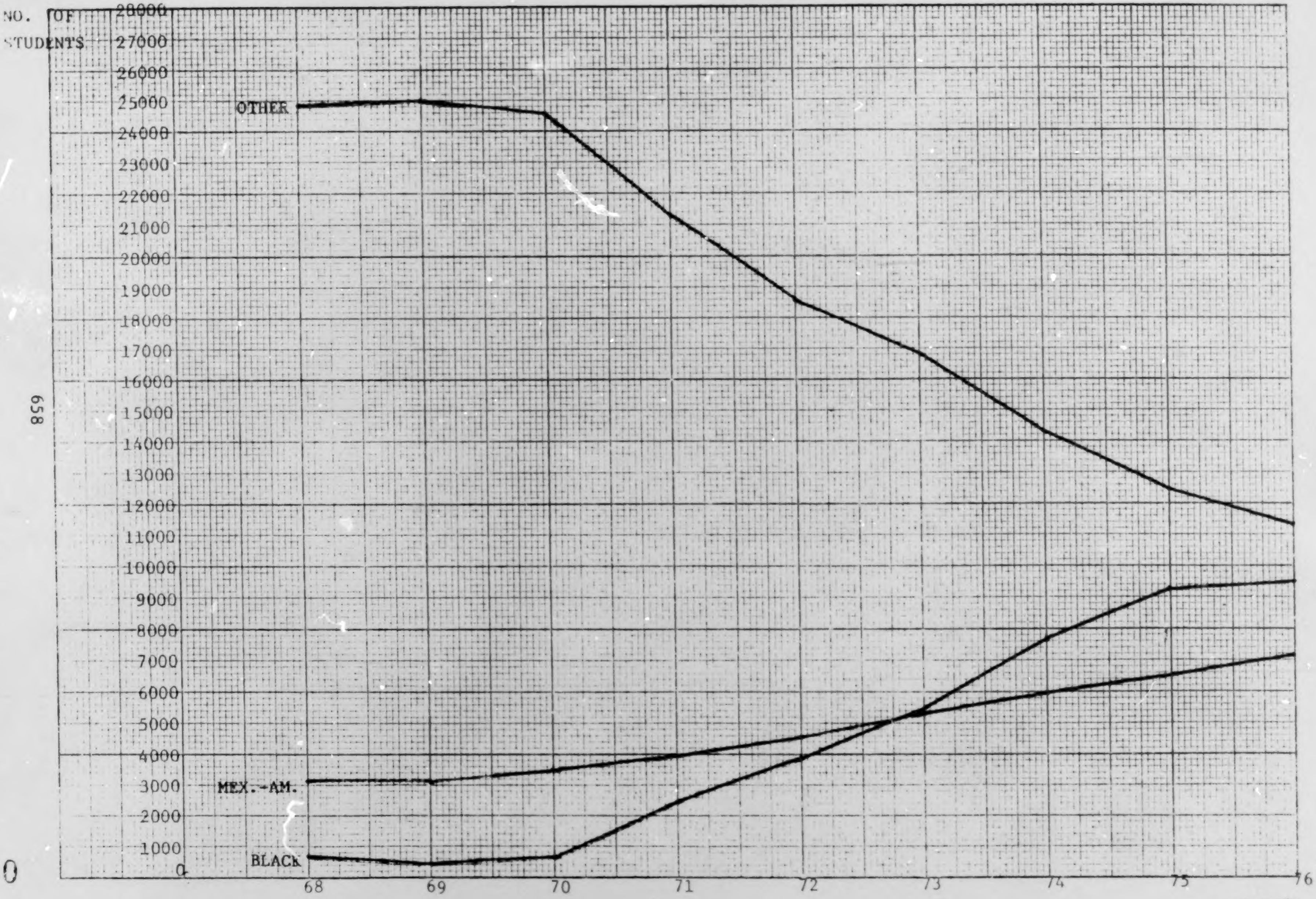
GRAPH# 3

ENROLLMENT IN THE SOUTH-EASTERN SUBDISTRICT



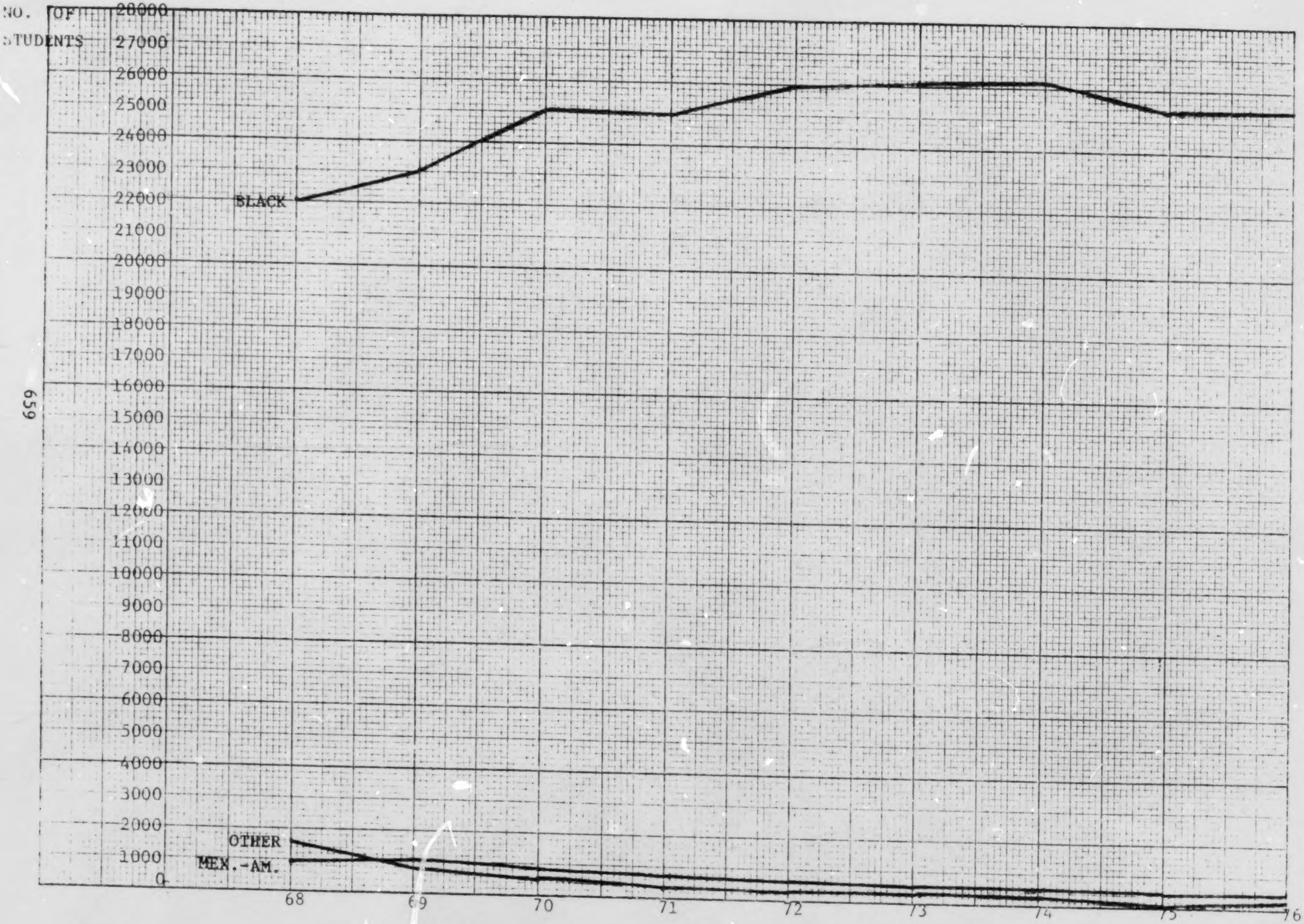
GRAPH#4

ENROLLMENT IN THE SOUTH-WESTERN SUBDISTRICT



GRAPH#5

ENROLLMENT IN THE EAST OAK CLIFF SUBDISTRICT



659

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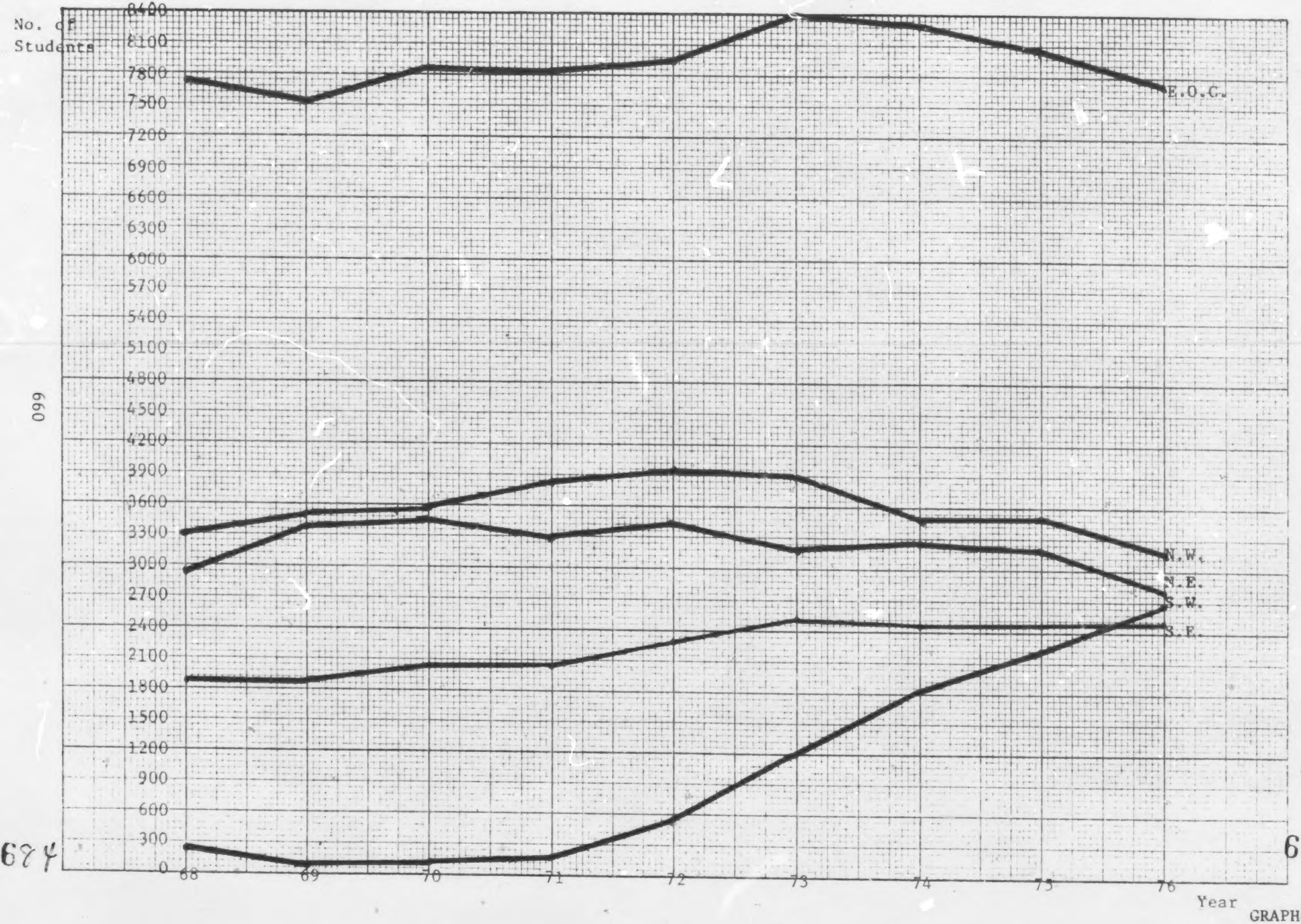
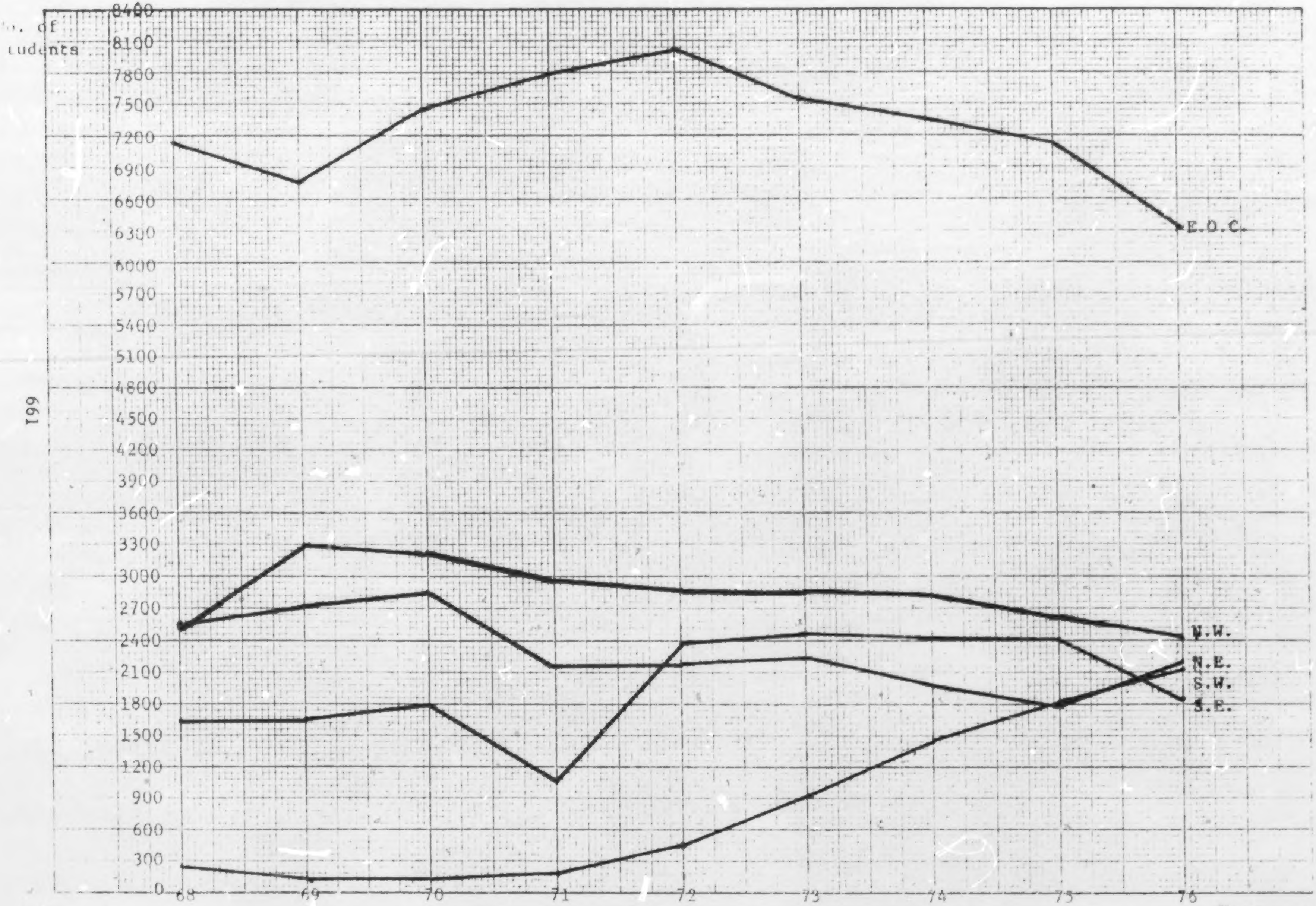
GRAPH #6

BLACK ENROLLMENT K-3



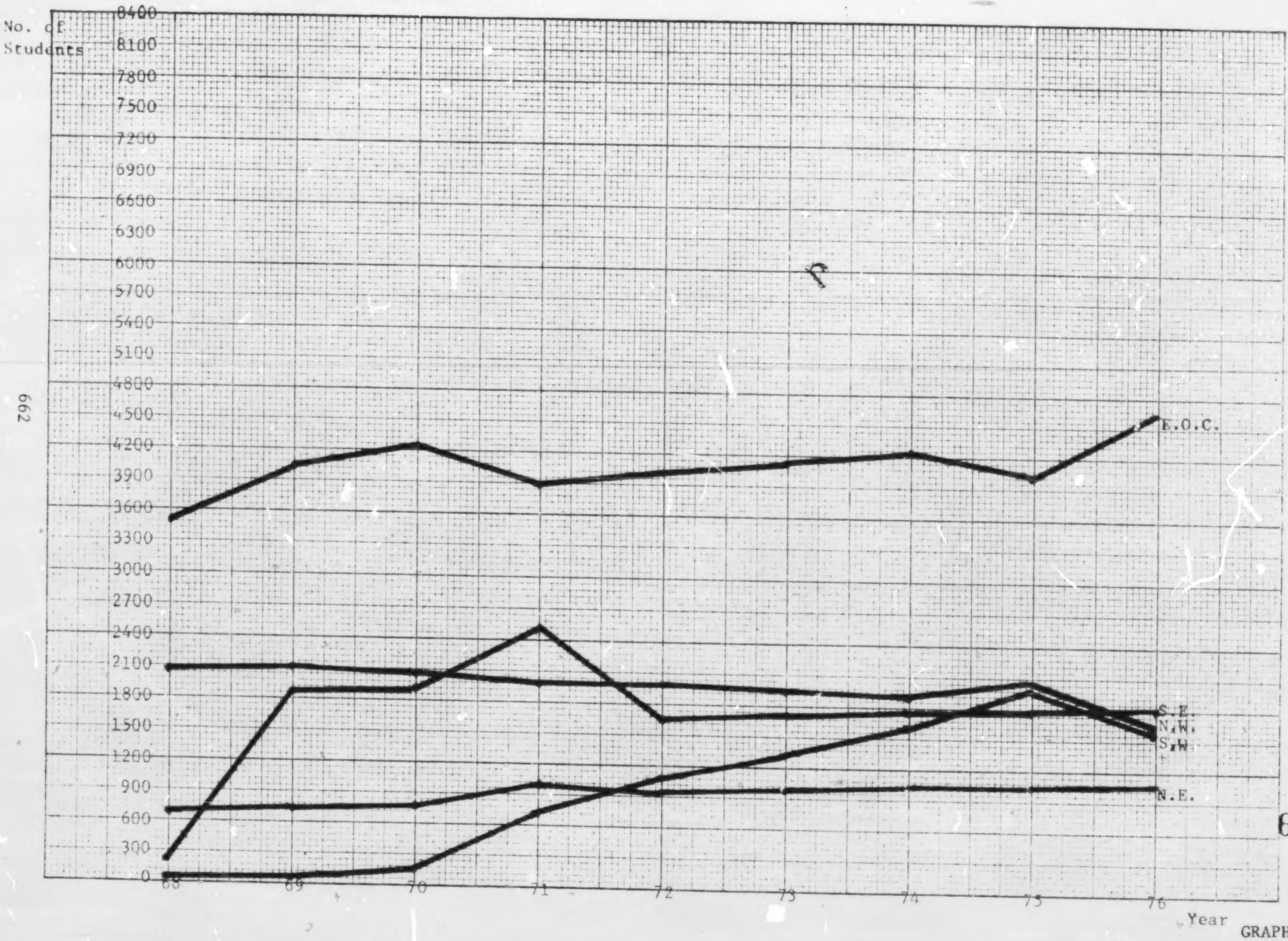
GRAPH#7

BLACK ENROLLMENT 4-6



GRAPH#8

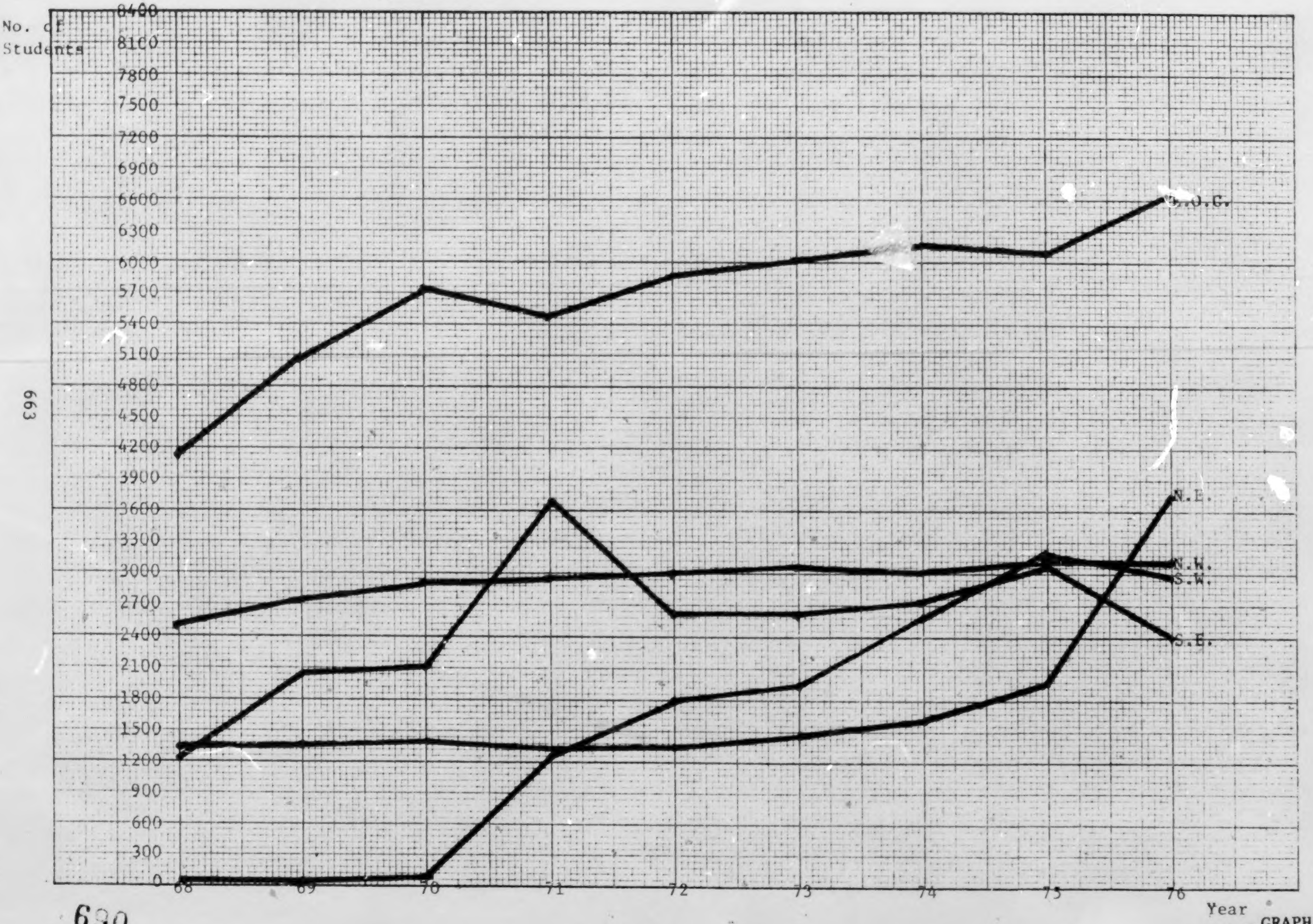
BLACK ENROLLMENT 7-8



GRAPH#9

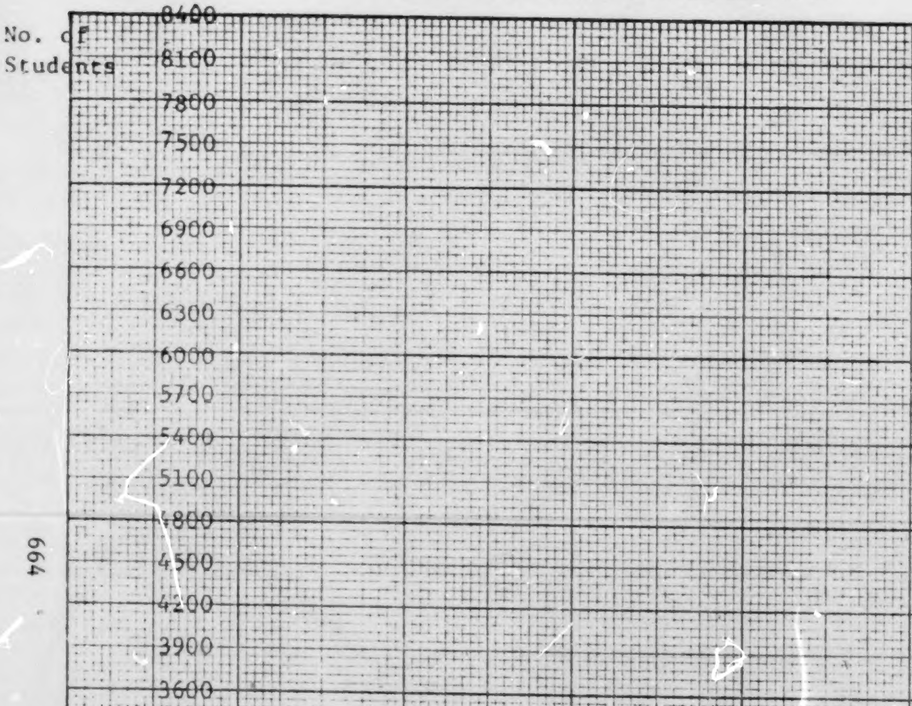
662

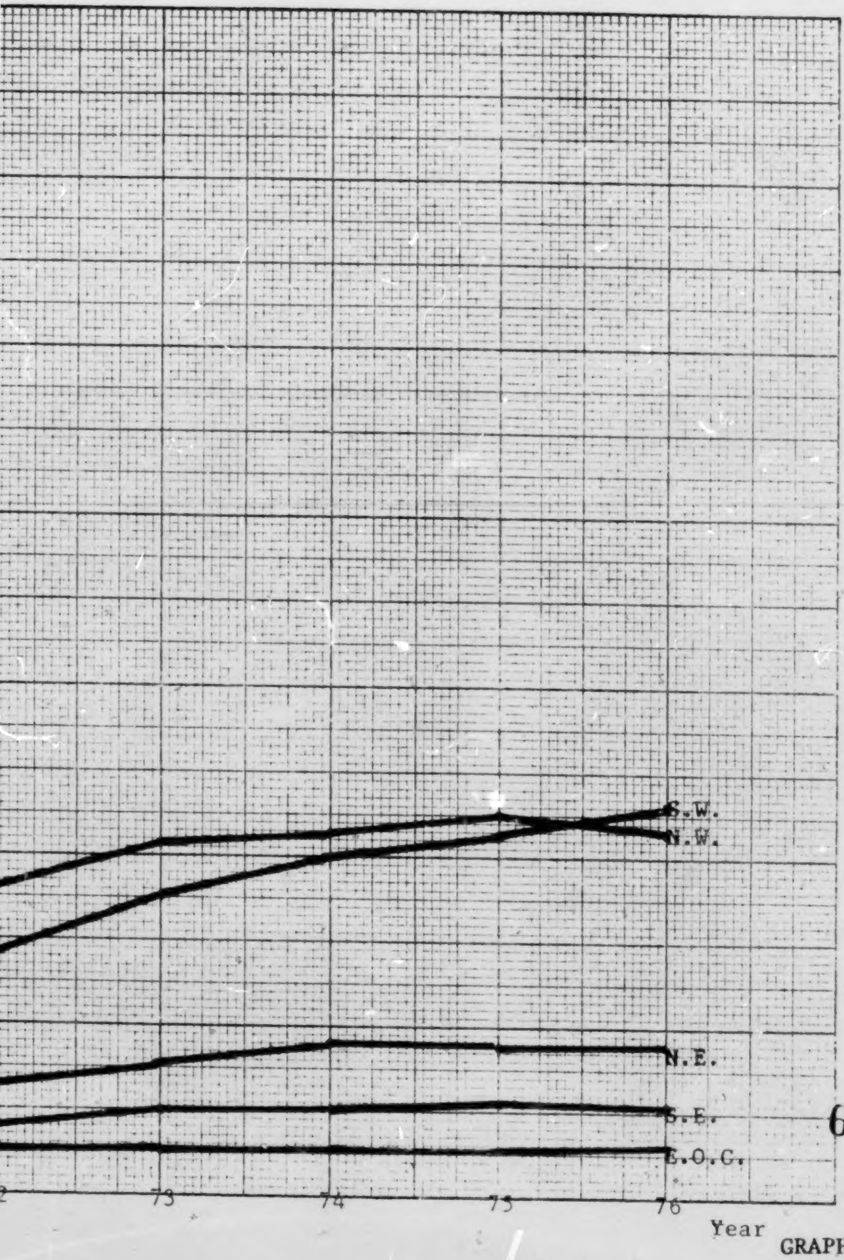
BLACK ENROLLMENT 9-12



GRAPH#1

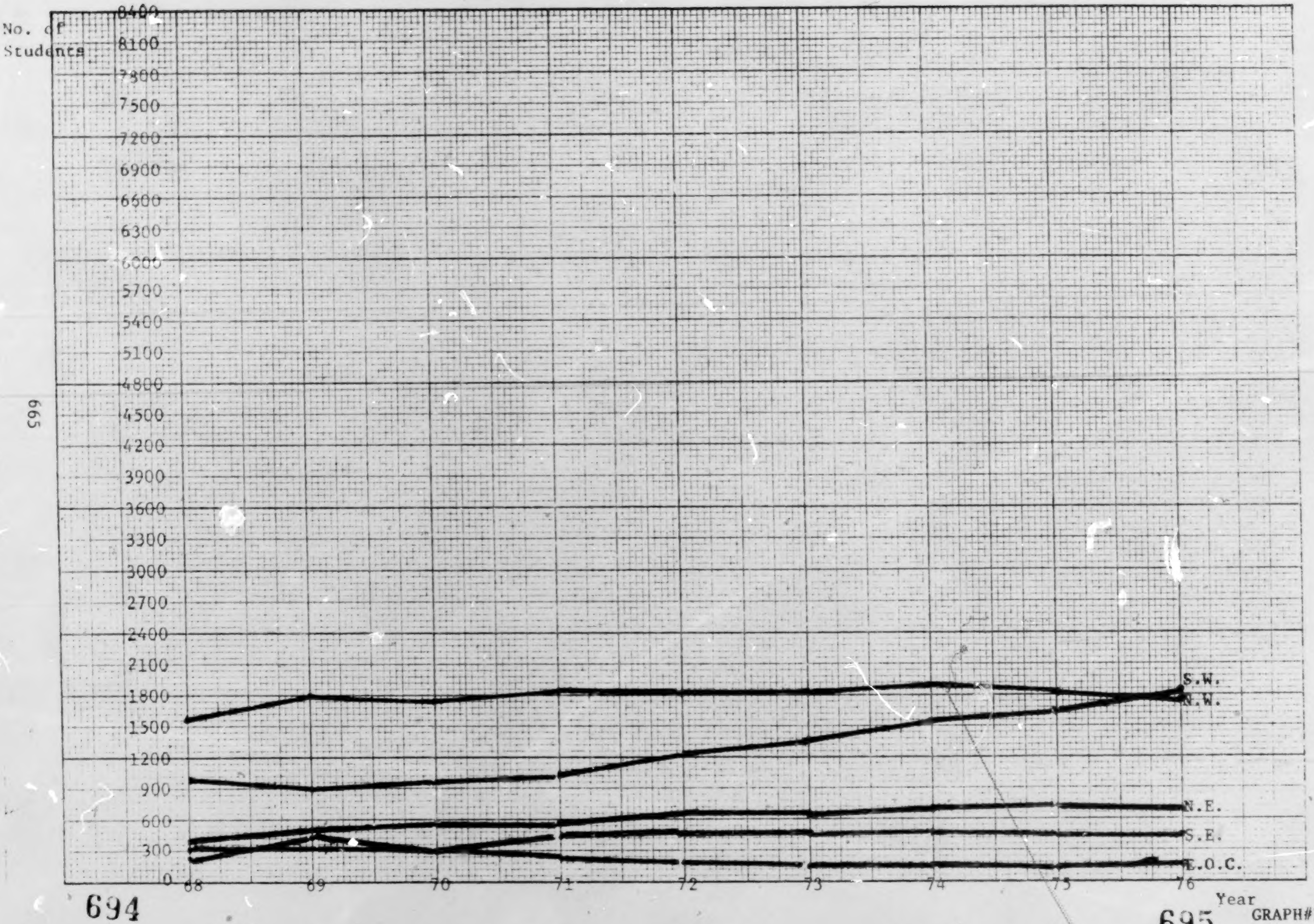
MEXICAN-AMERICAN ENROLLMENT K-3





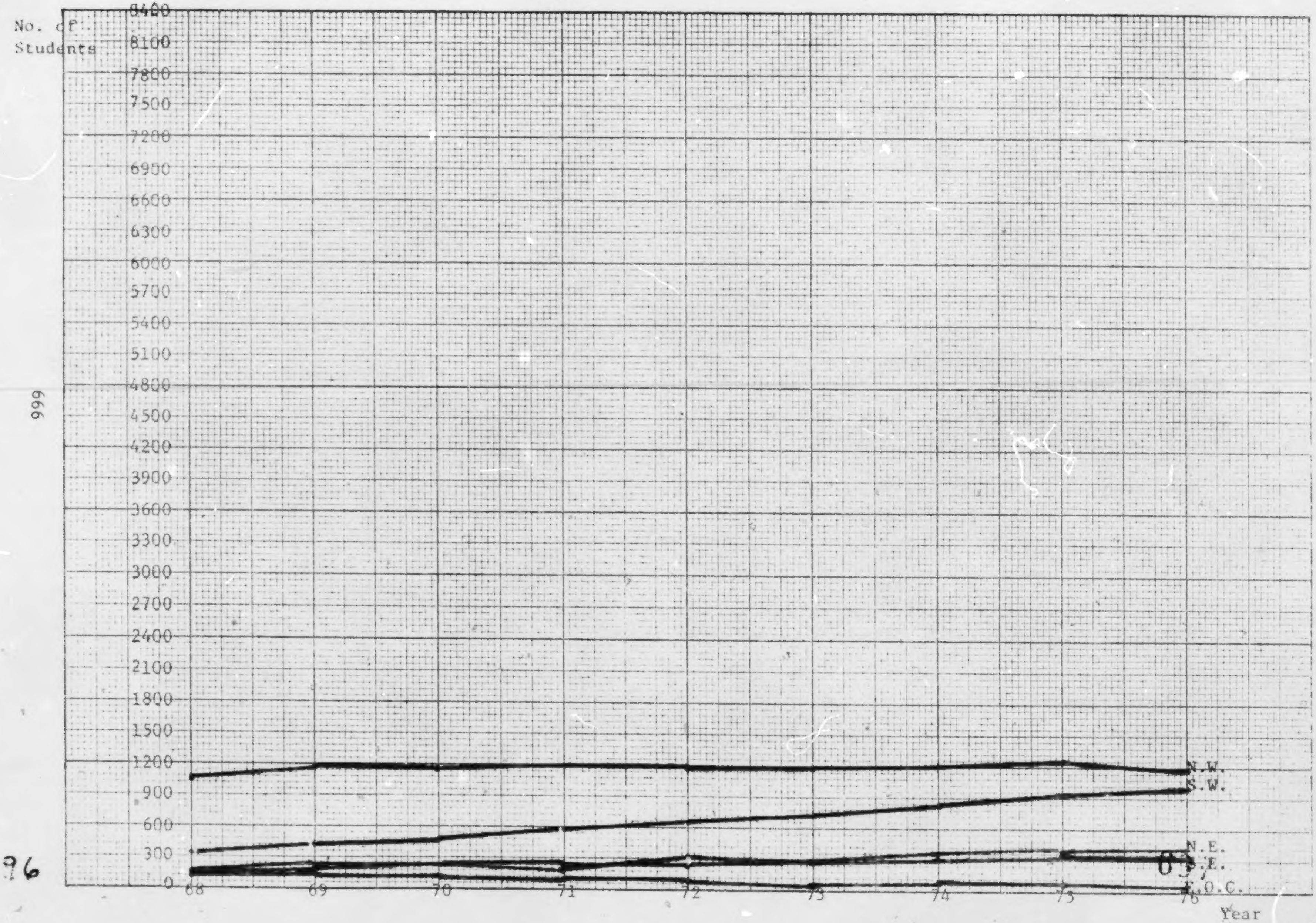
GRAPH#1

MEXICAN-AMERICAN ENROLLMENT 4-6



GRAPH#12

MEXICAN-AMERICAN ENROLLMENT 7-8

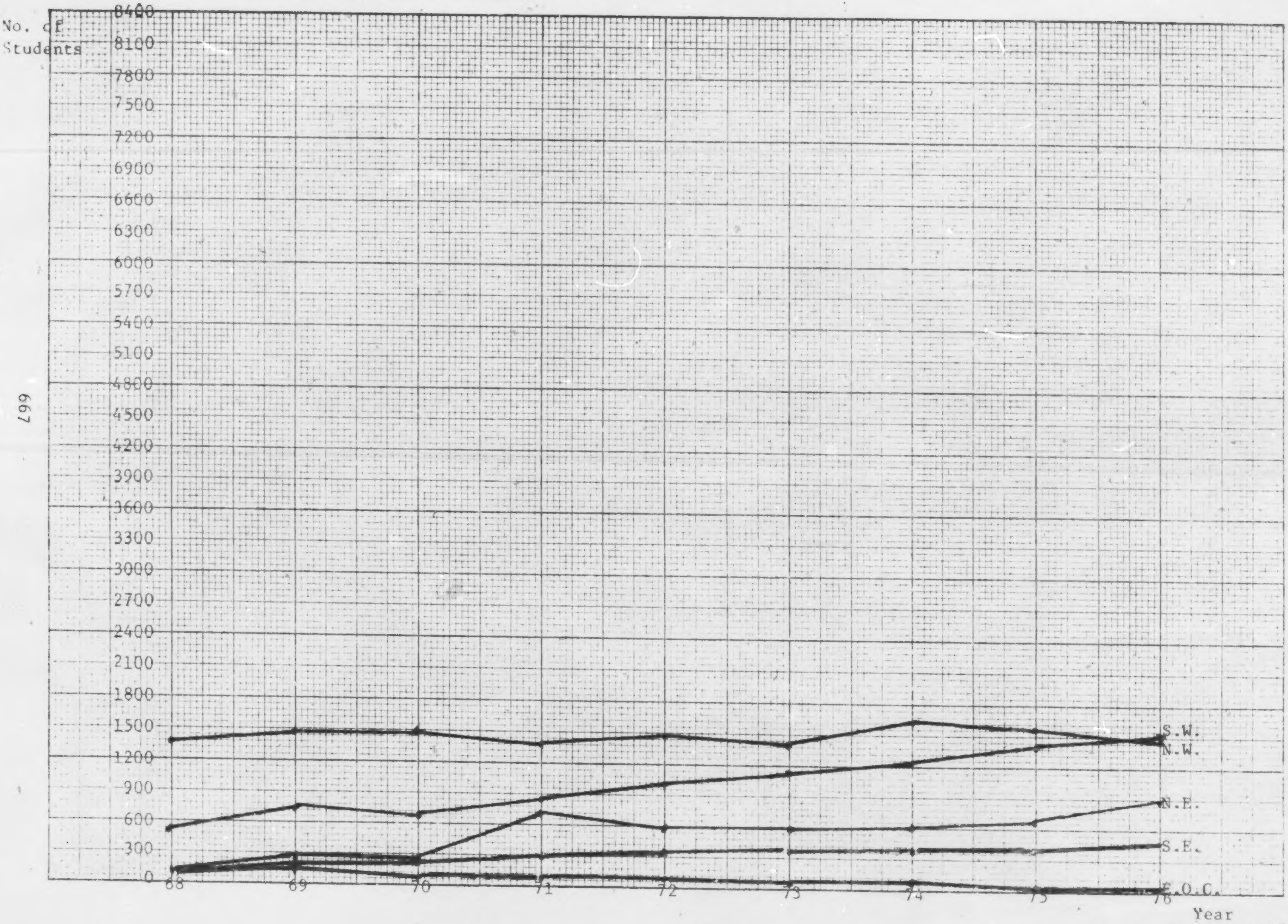


GRAPH#13

696

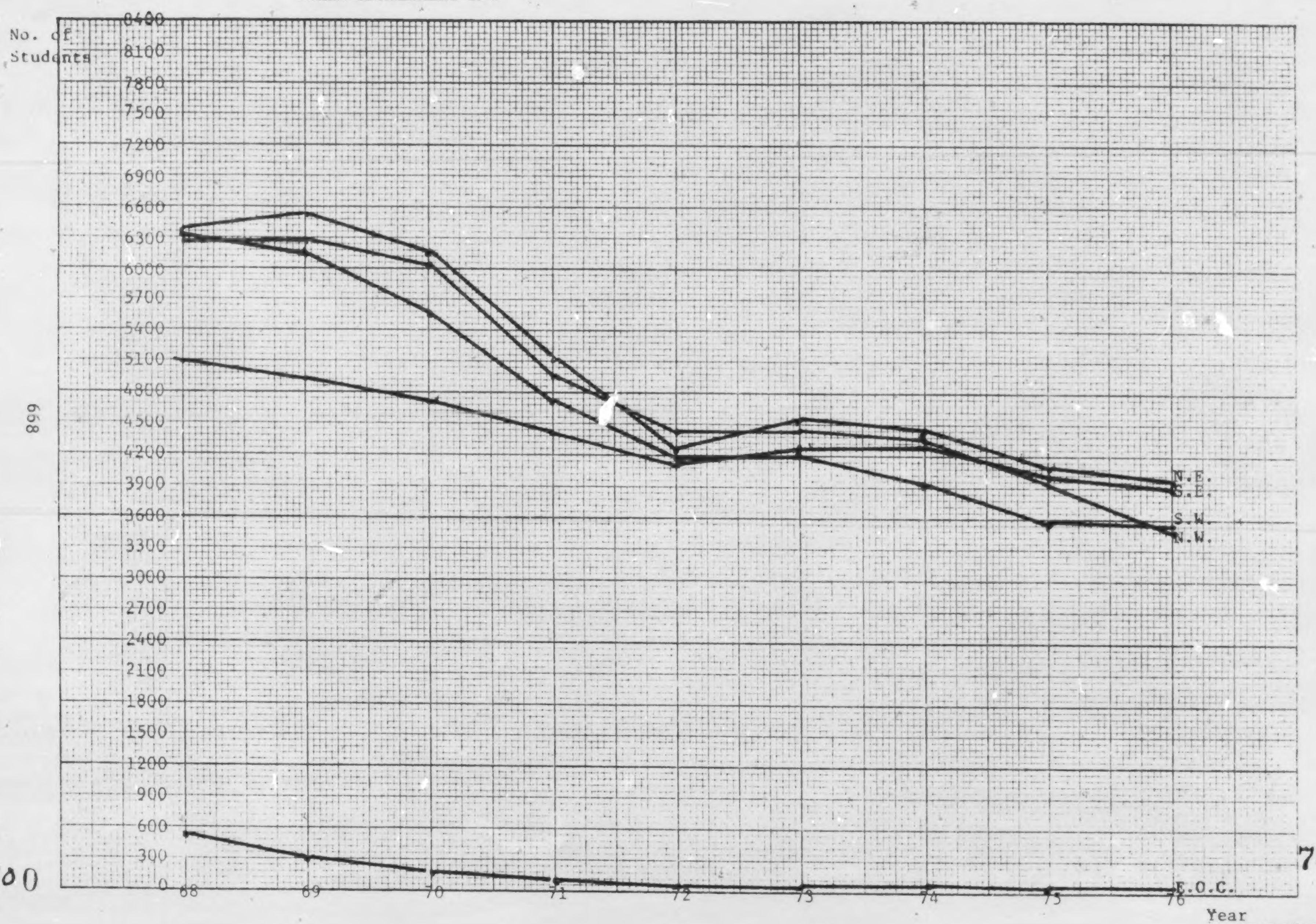
697

MEXICAN-AMERICAN ENROLLMENT 9-12



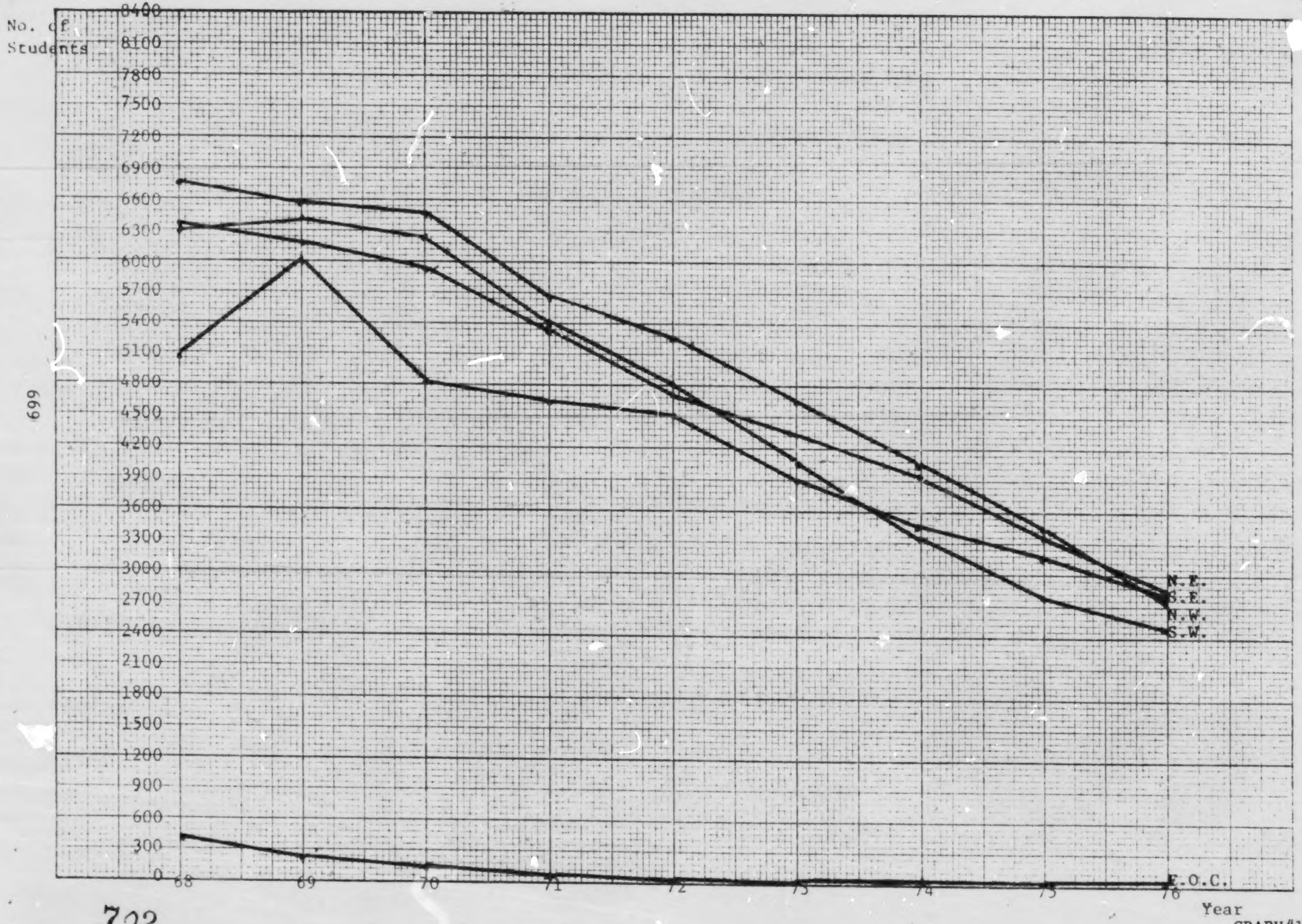
GRAPH#14

OTHER ENROLLMENT K-3



GRAPH#15

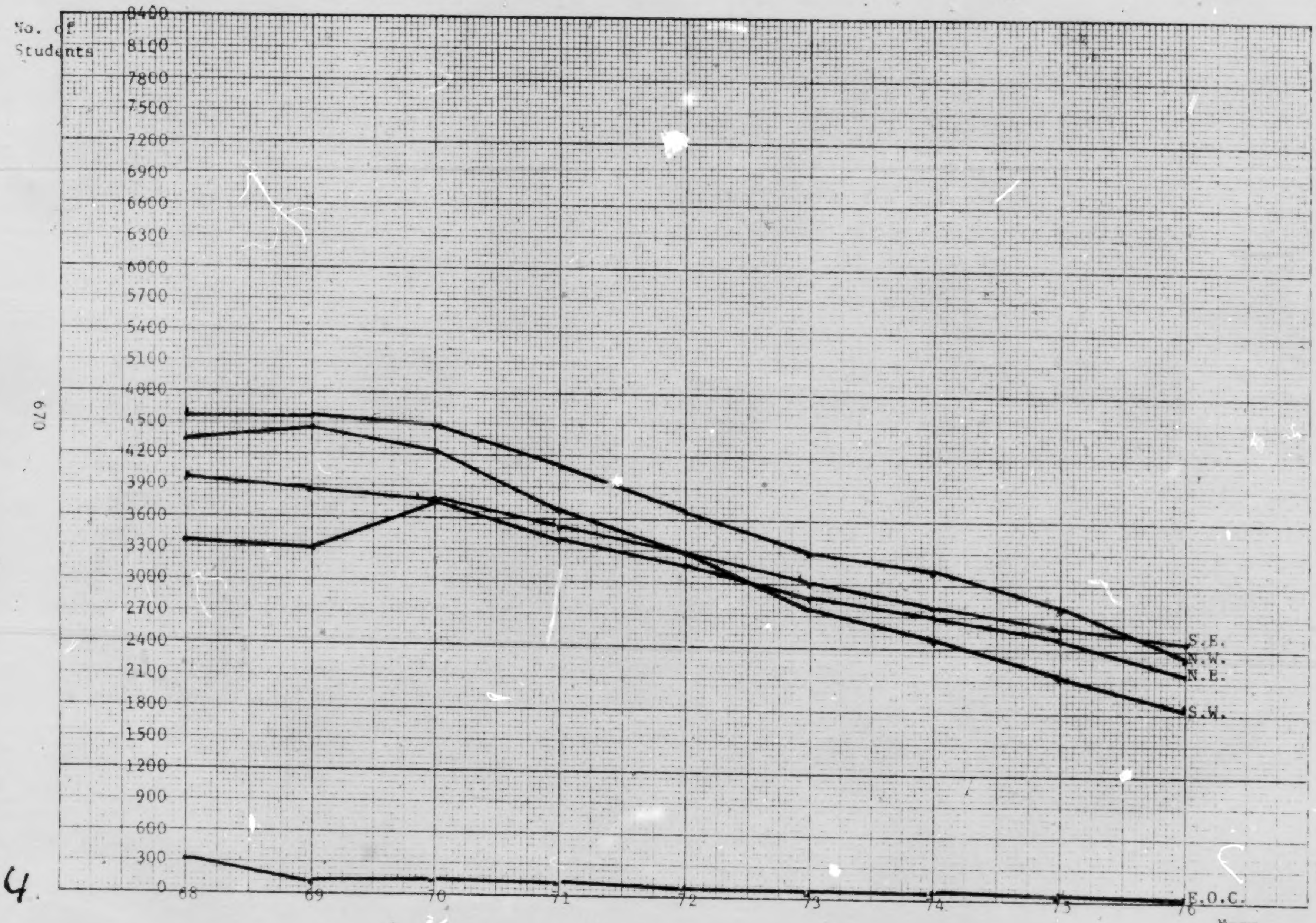
OTHER ENROLLMENT 4-6



GRAPH#16

699

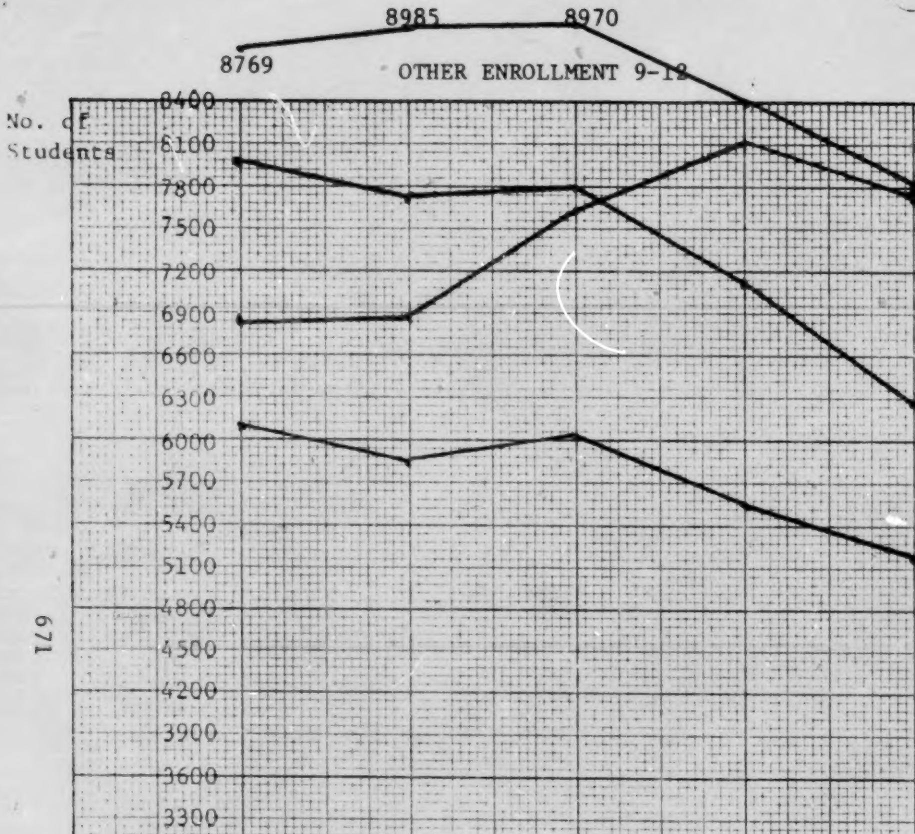
OTHER ENROLLMENT 7-8



704

705

GRAPH#17


8769
8985
8970
OTHER ENROLLMENT 9-12
No. of Students
8400
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7800
7500
7200
6900
6600
6300
6000
5700
5400
5100
4800
4500
4200
3900
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1800
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1200
900
600
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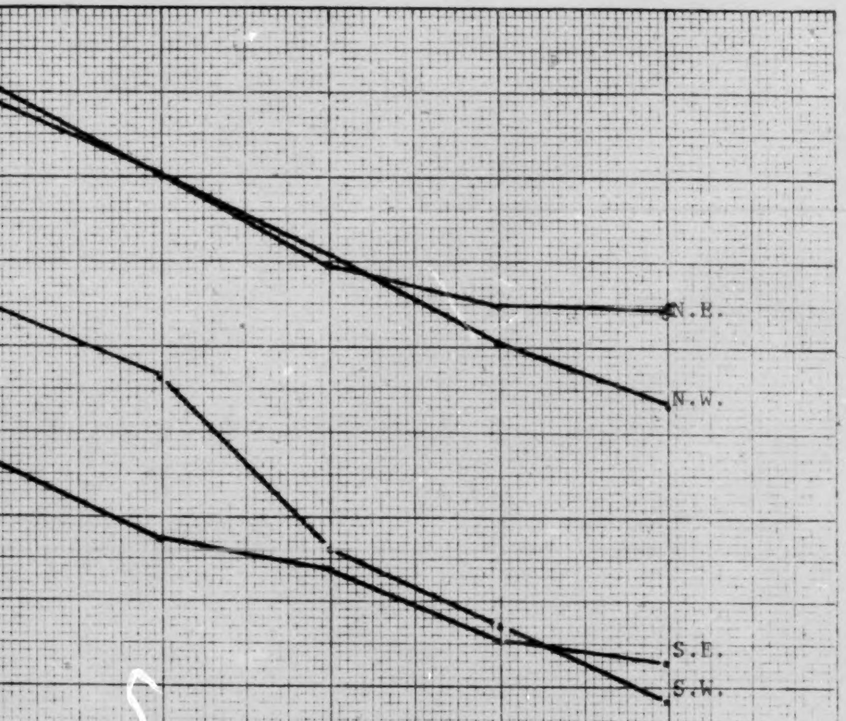
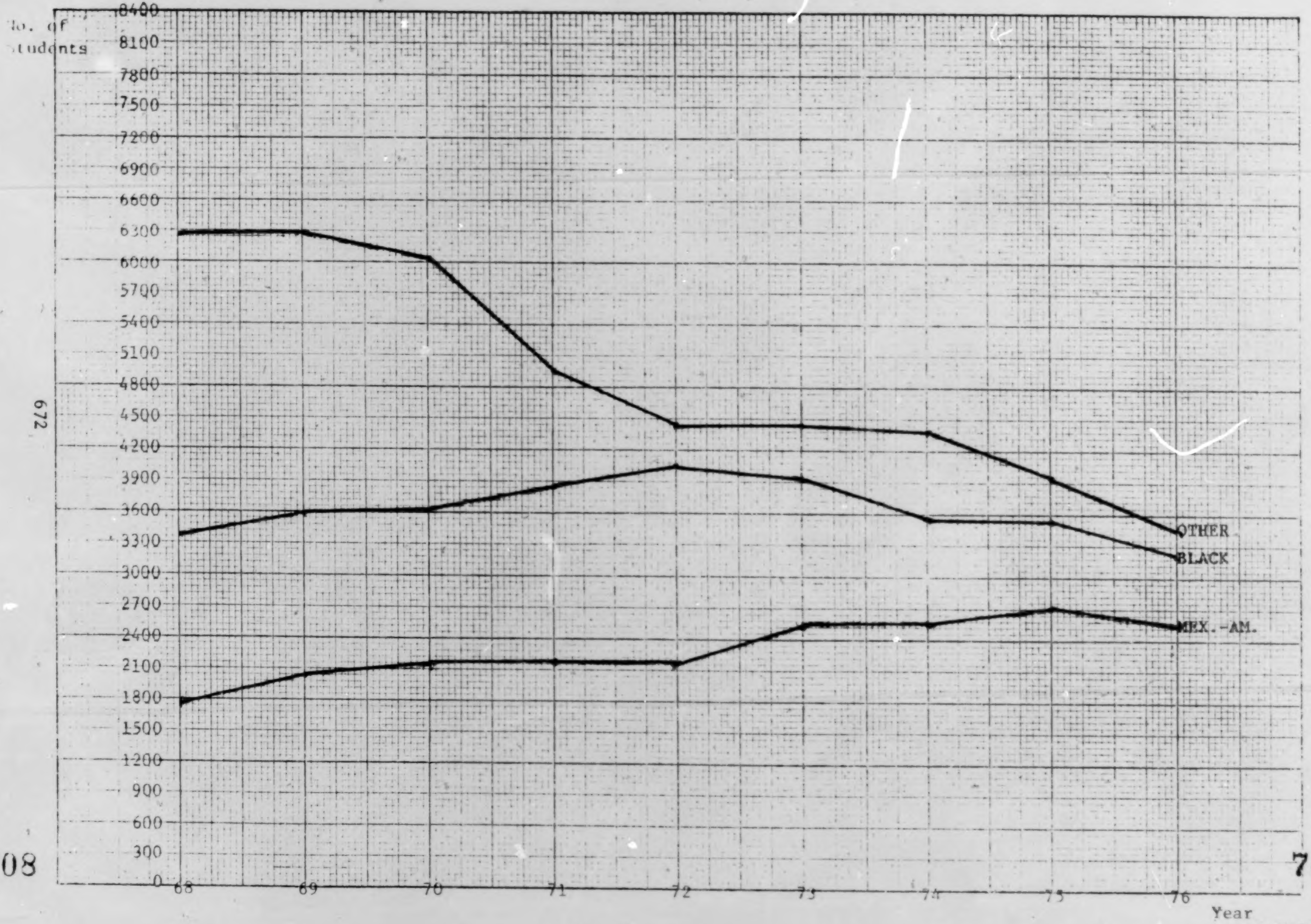
68
69
70
71



GRAPH #18

672

THE N.W. SUBDISTRICT FOR K-3

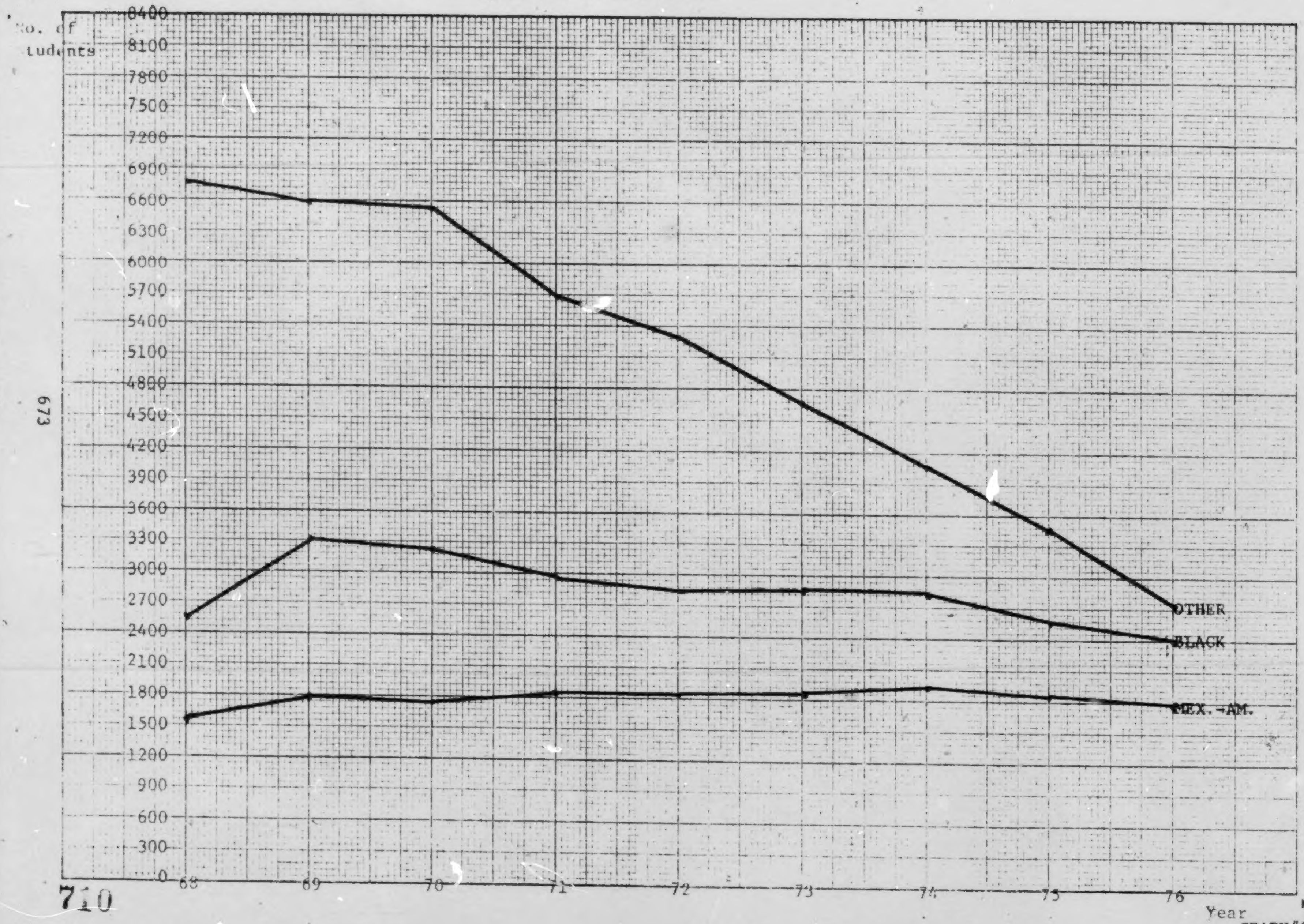


GRAPH#19

708

709

THE N.W. SUBDISTRICT FOR 4-6



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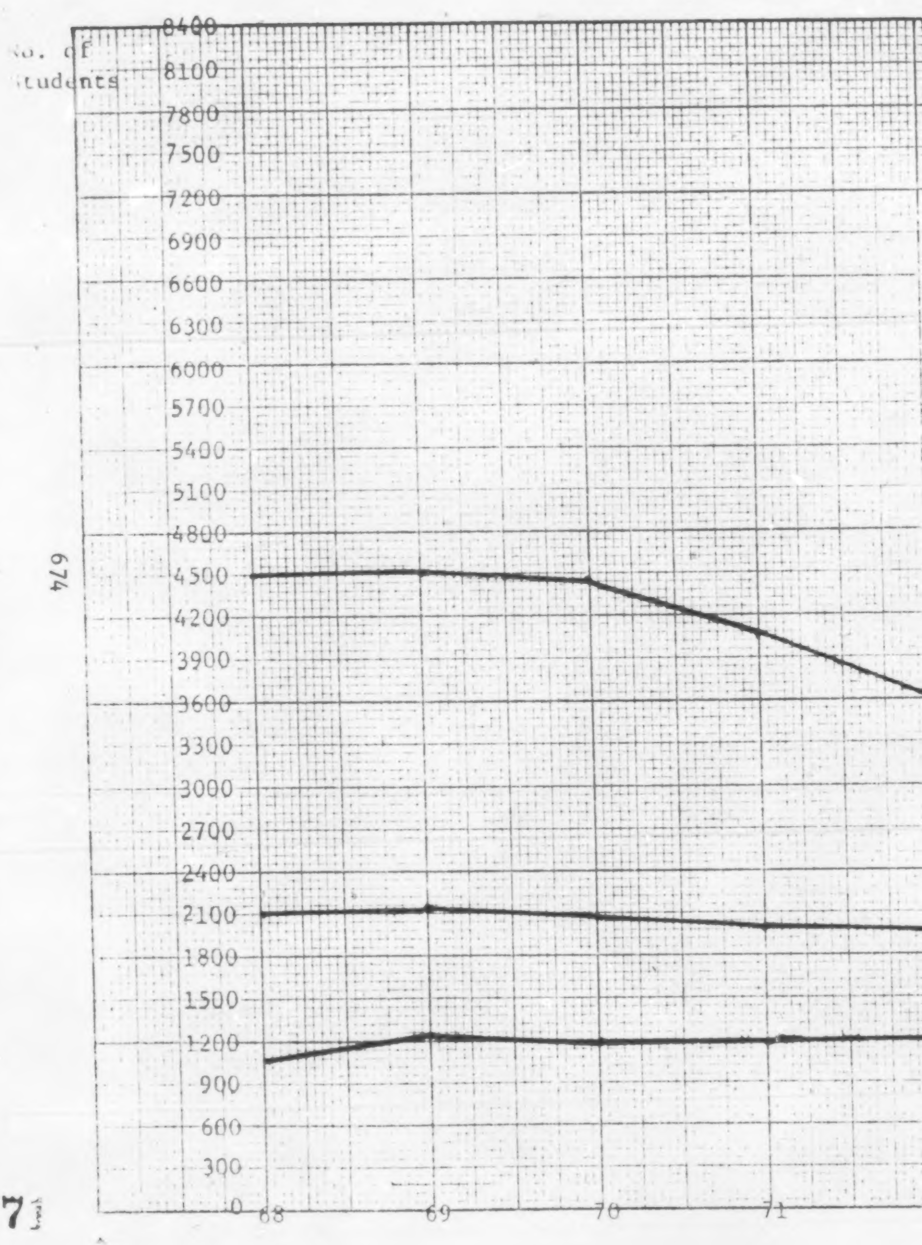
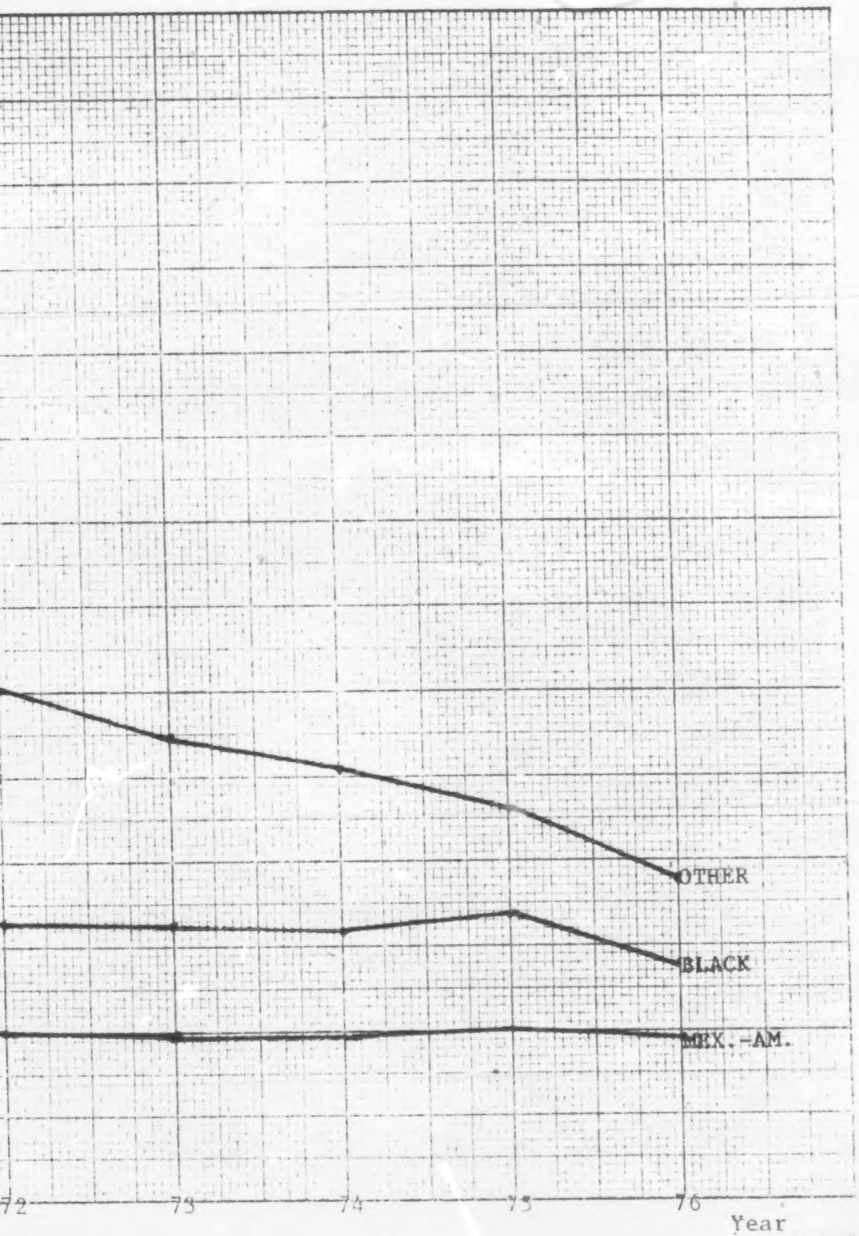
THE N.W. SUBDISTRICT FOR

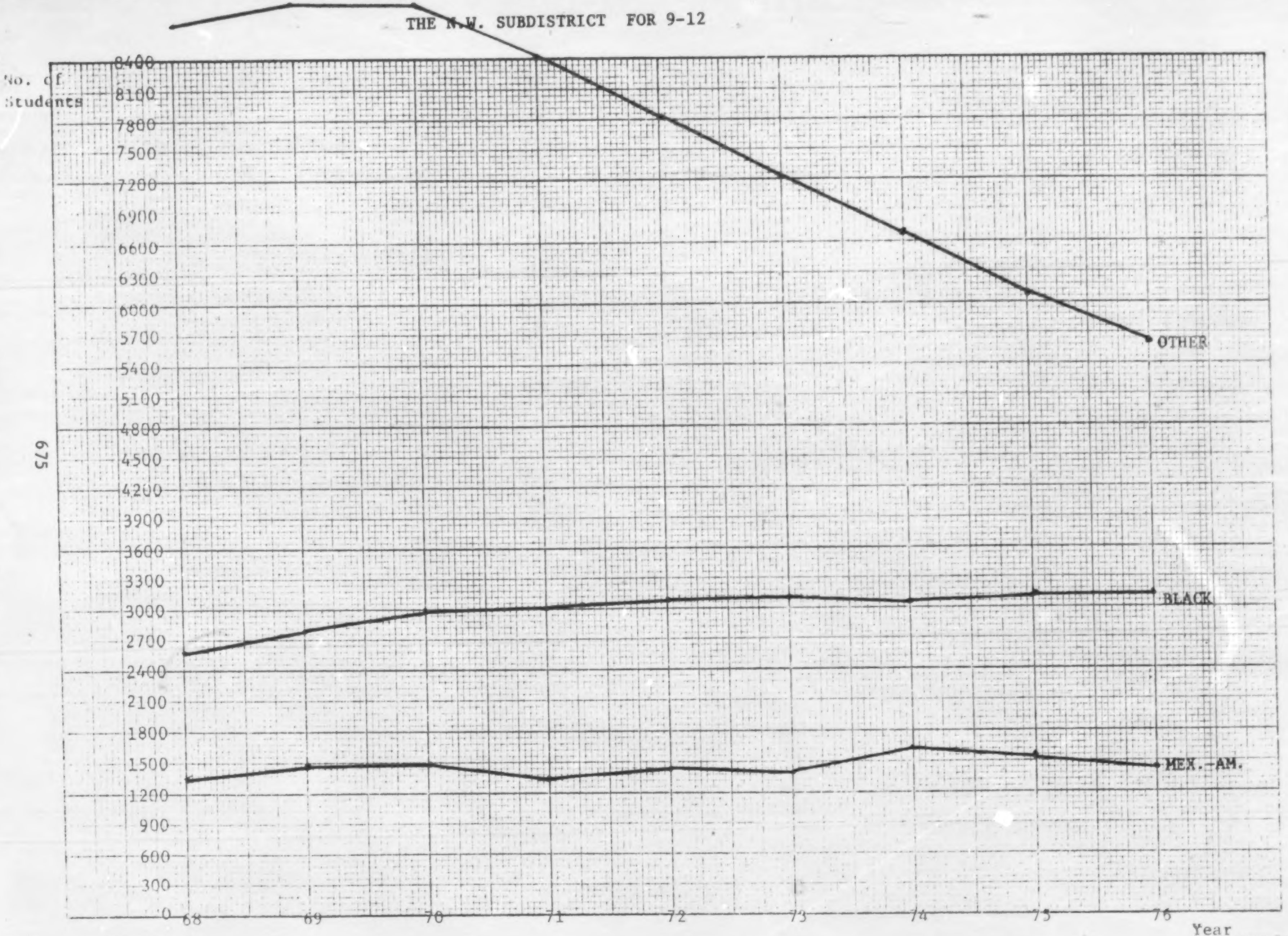


7-8



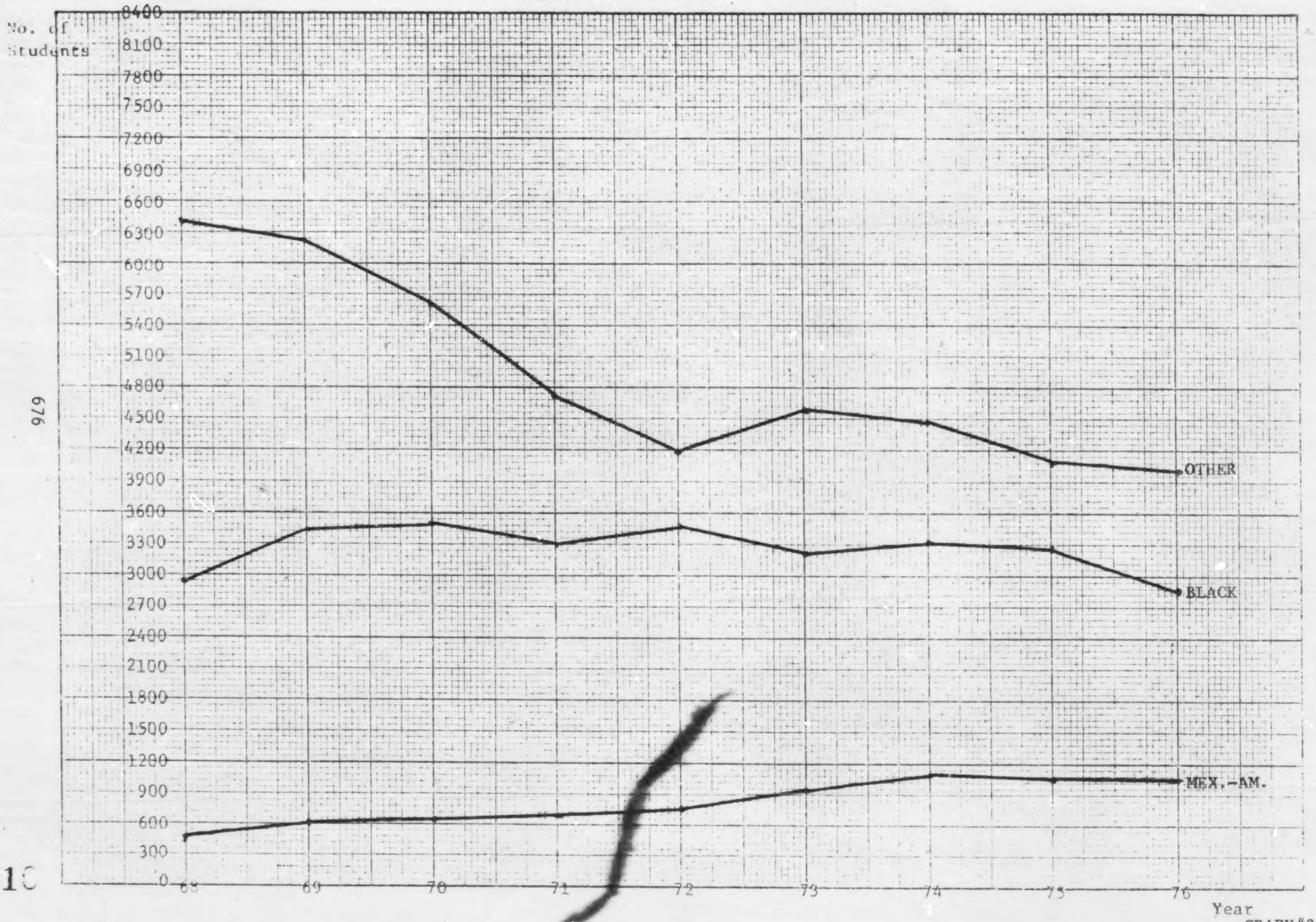
GRAPH#21

THE N.W. SUBDISTRICT FOR 9-12



GRAPH#22

THE N.E. SUBDISTRICT FOR K-3



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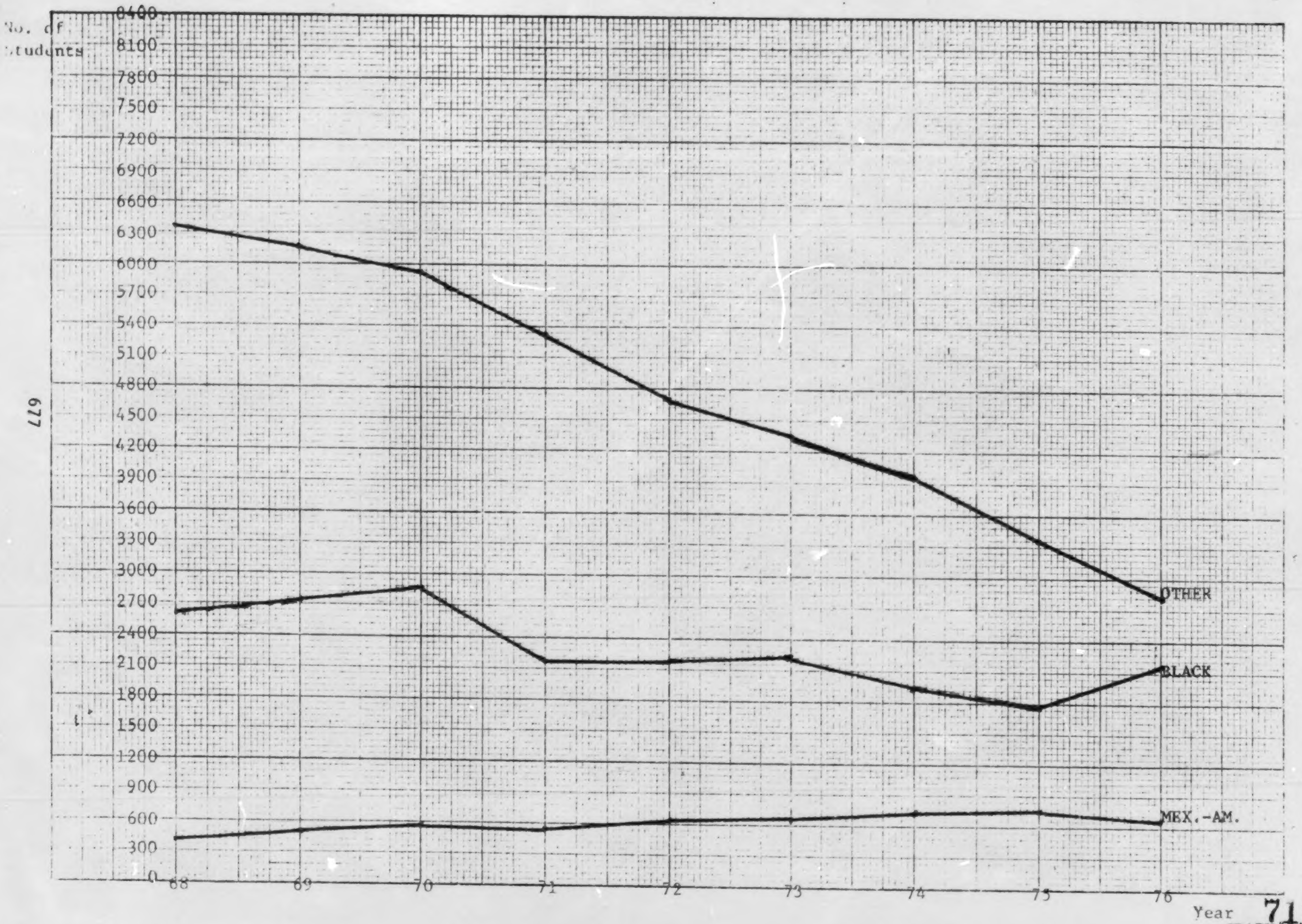
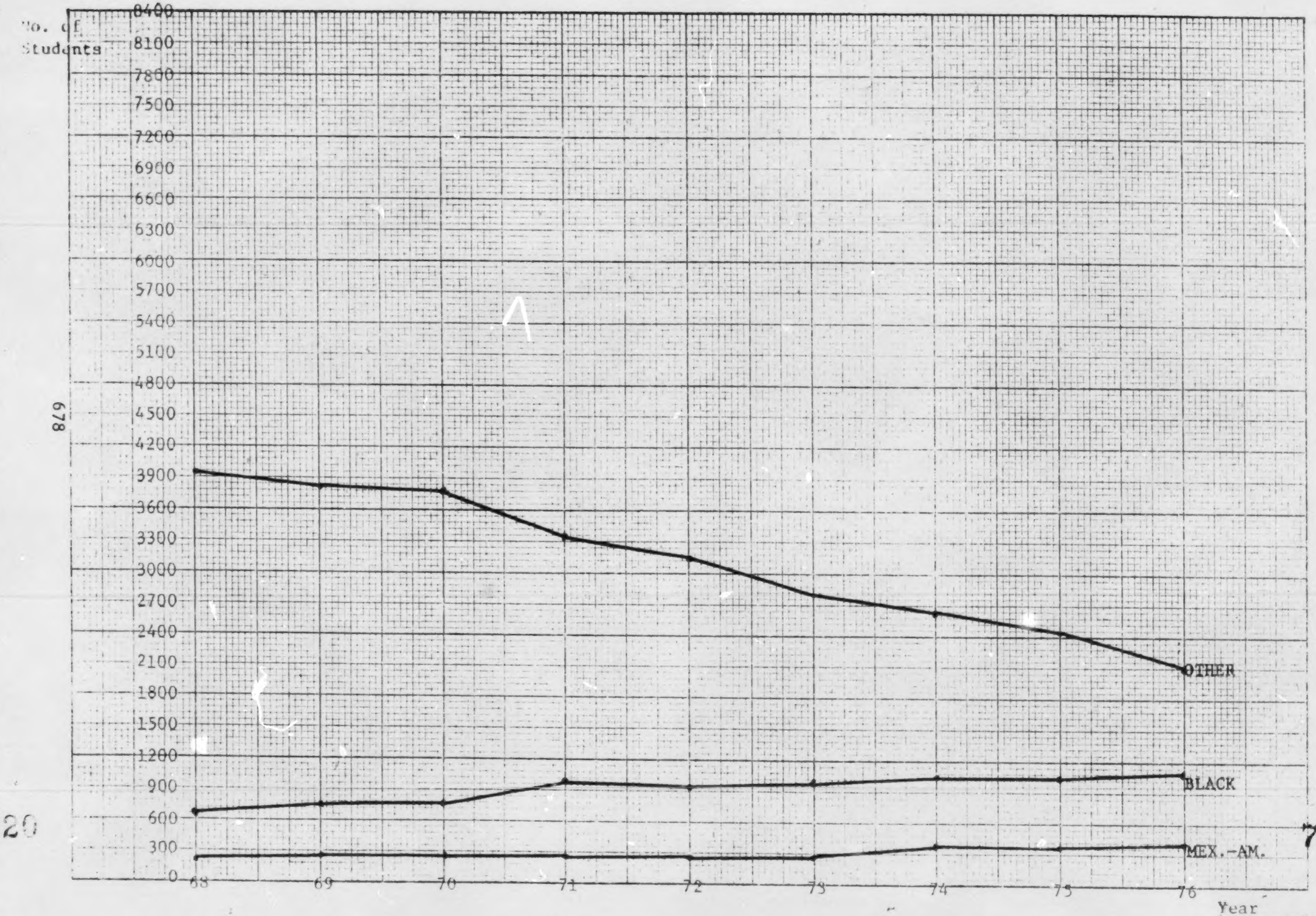
THE N.E. SUBDISTRICT FOR 4-6



GRAPH#24

THE N.E. SUBDISTRICT FOR 7-8



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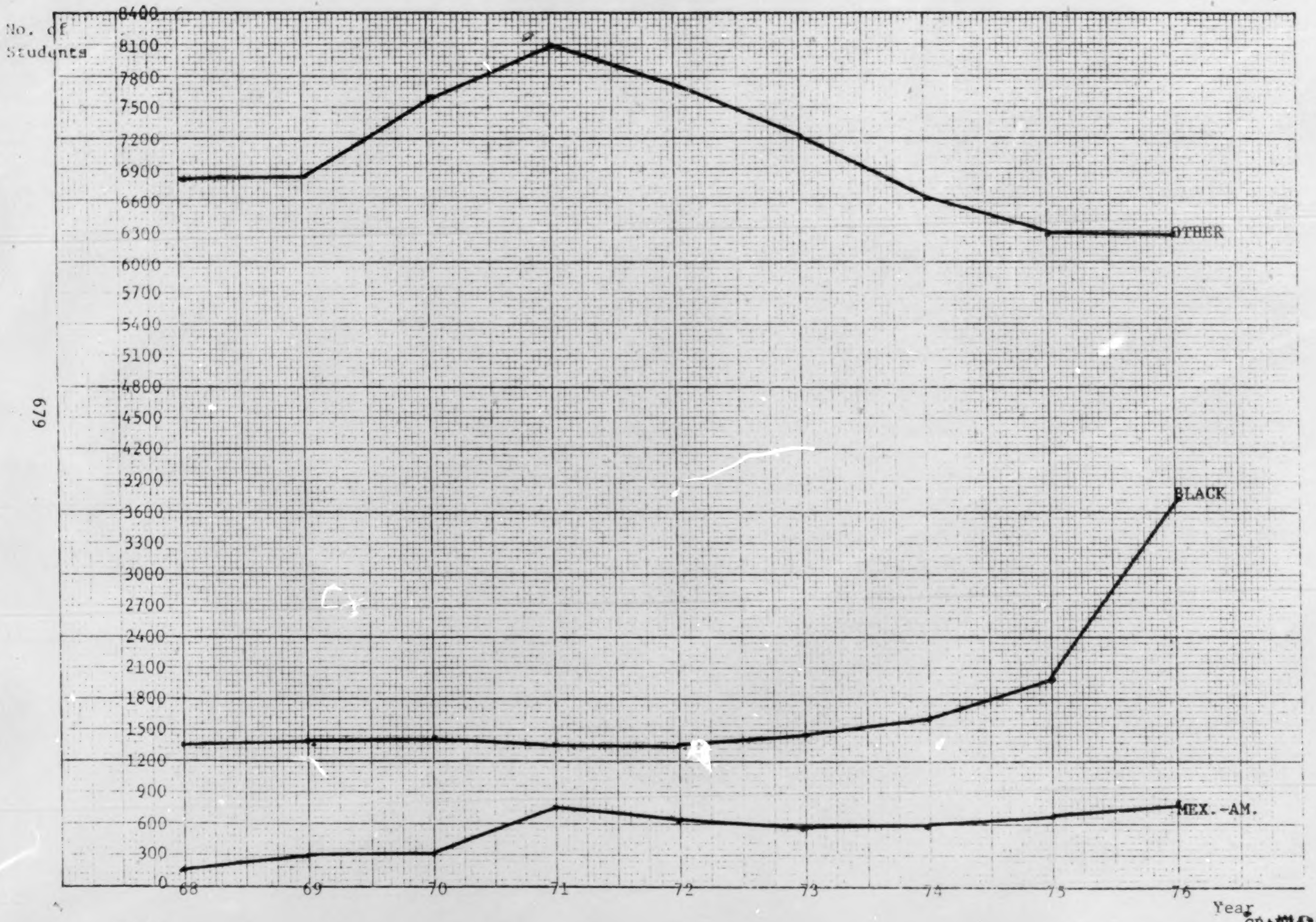

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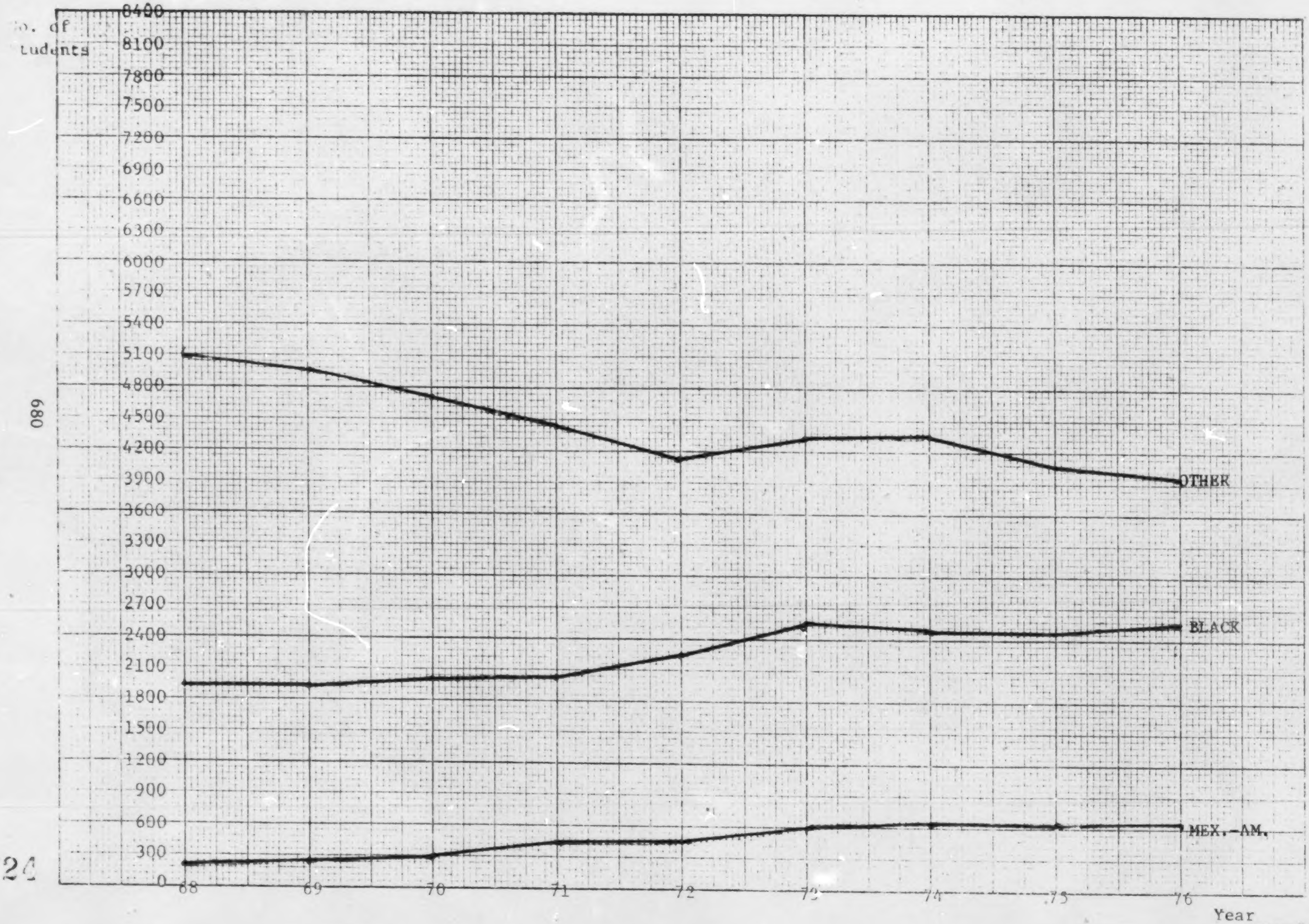
THE S.E. SUBDISTRICT FOR K-3



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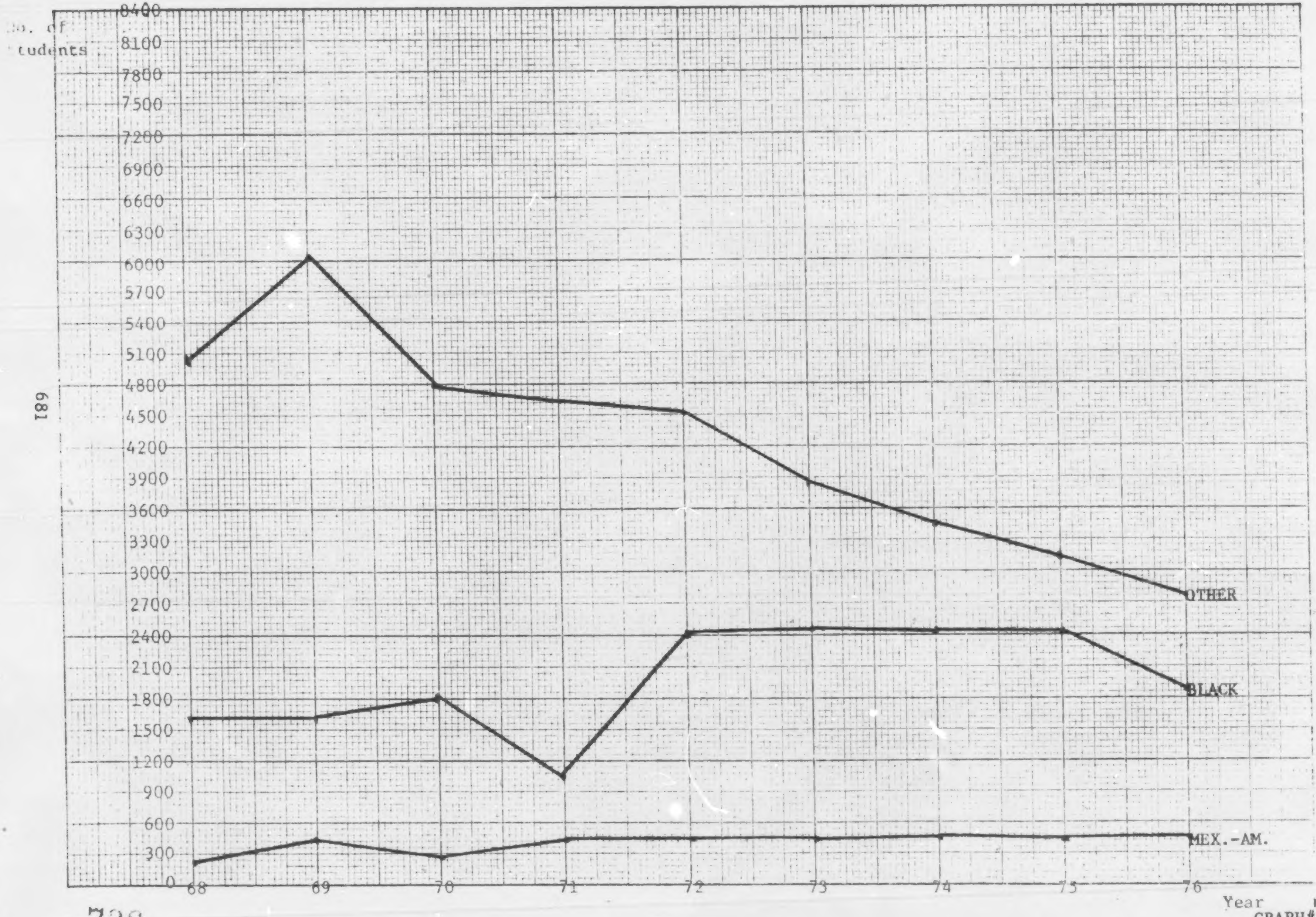
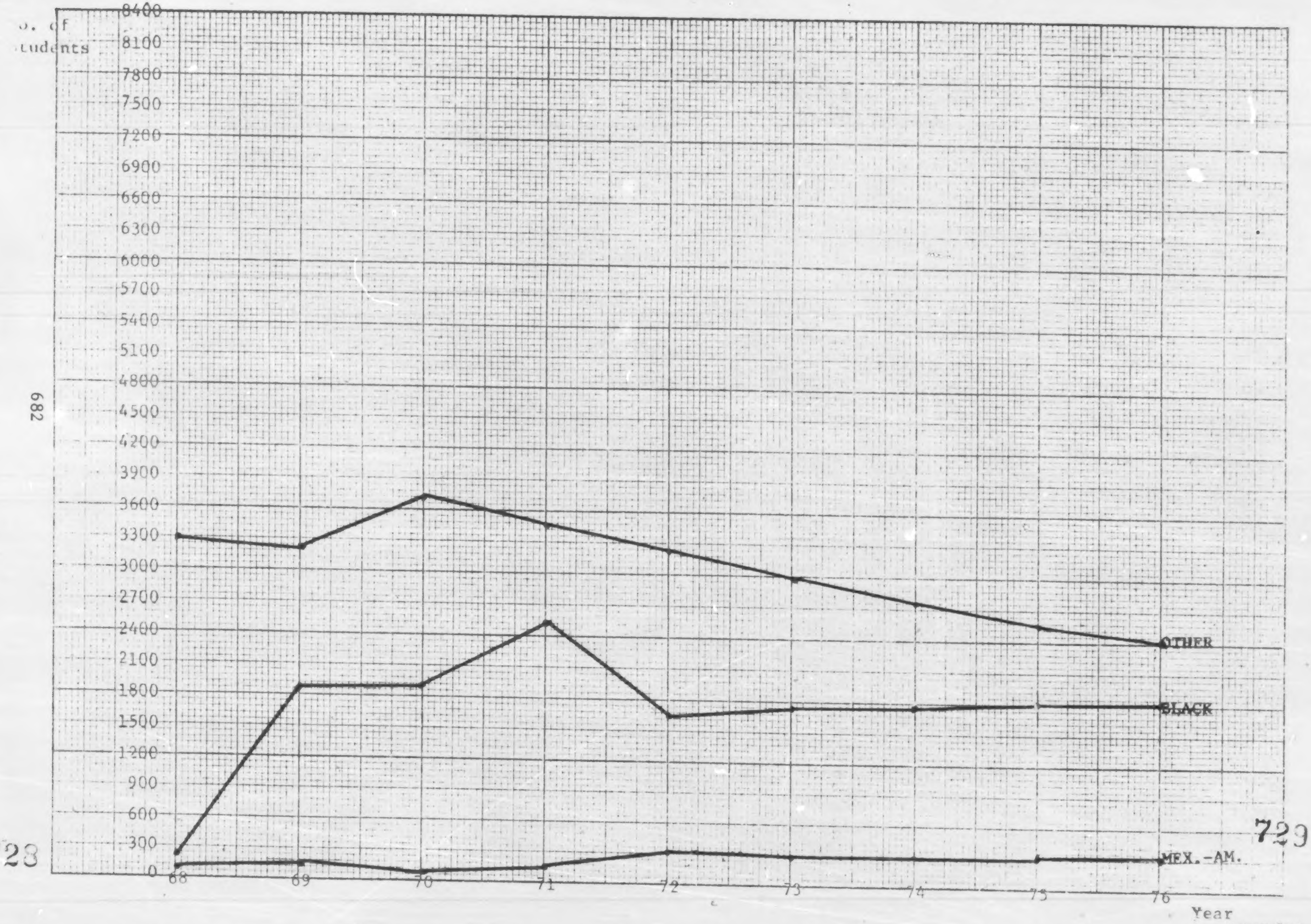
THE S.E. SUBDISTRICT FOR 4-6



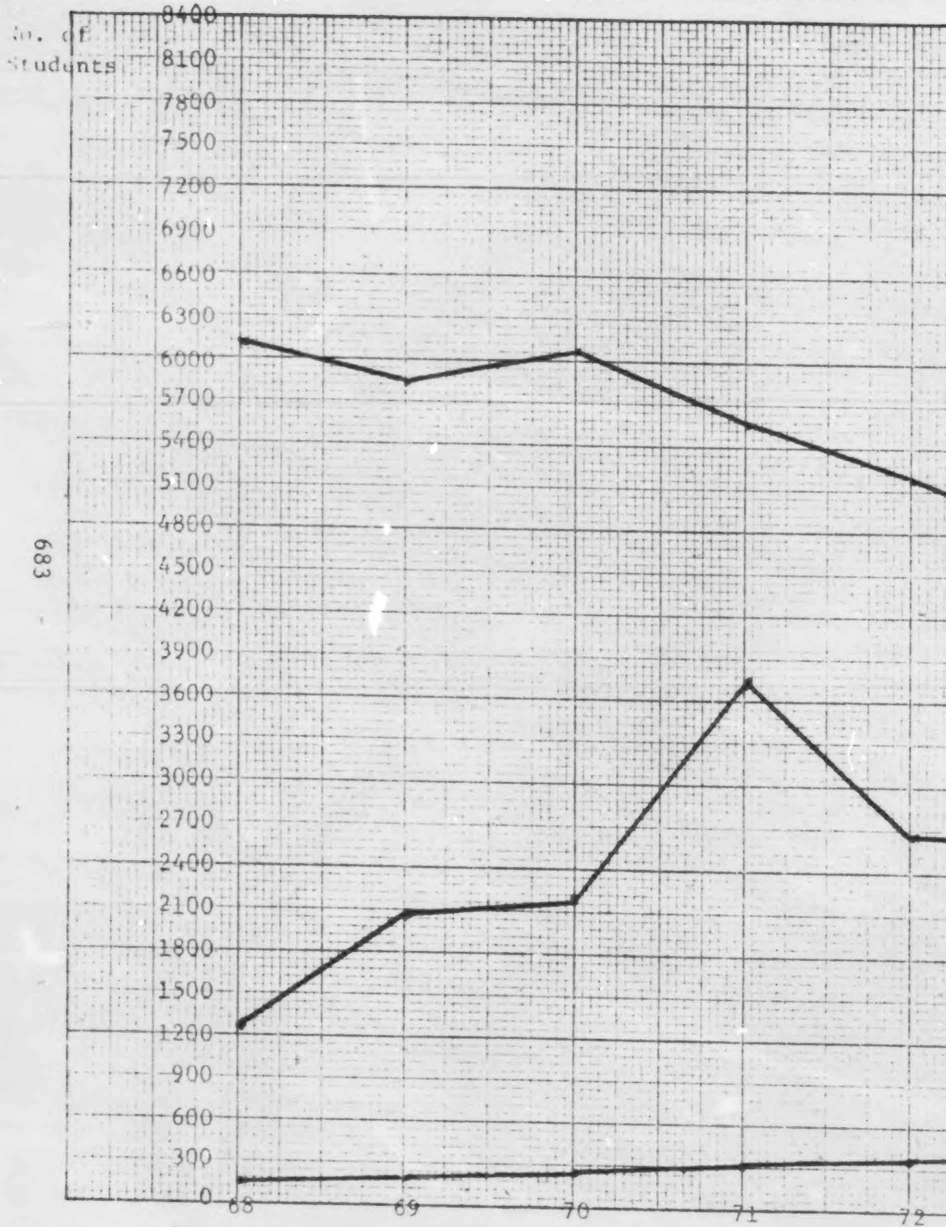
GRAPH#18

THE S.E. SUBDISTRICT FOR 7-8



GRAPH#29

THE S.E. SUBDISTRICT FOR 9-



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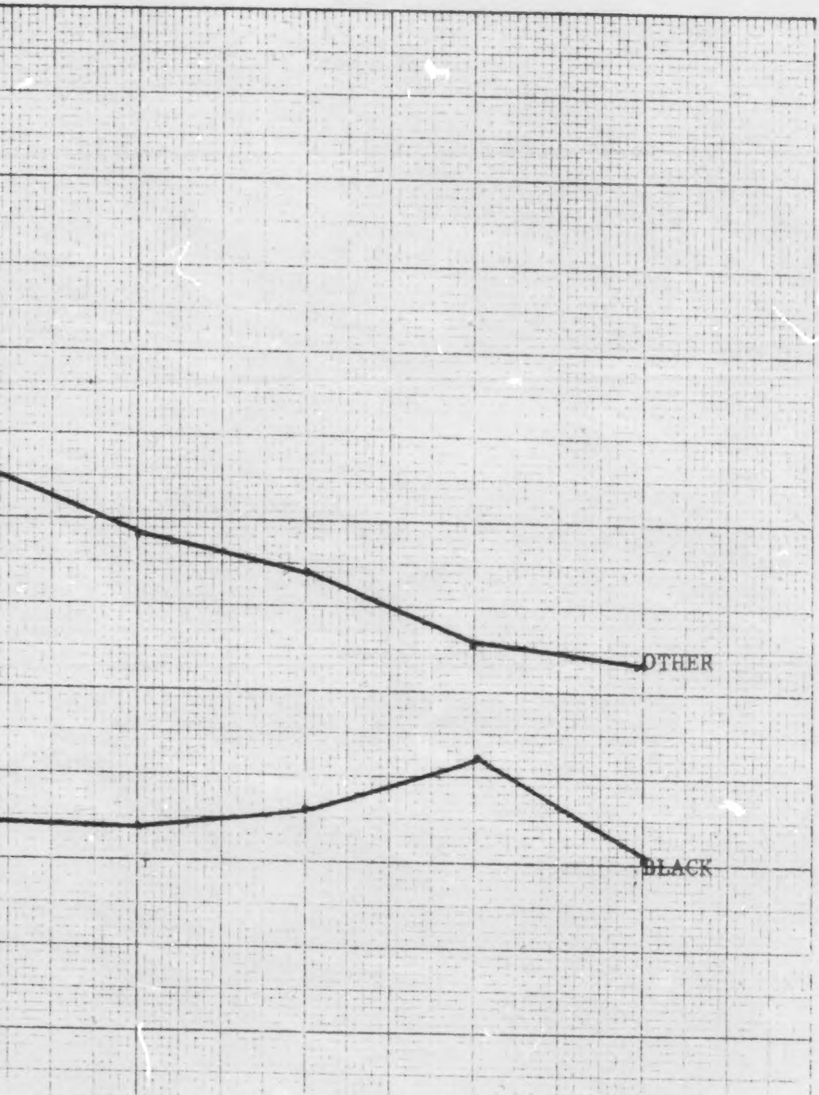

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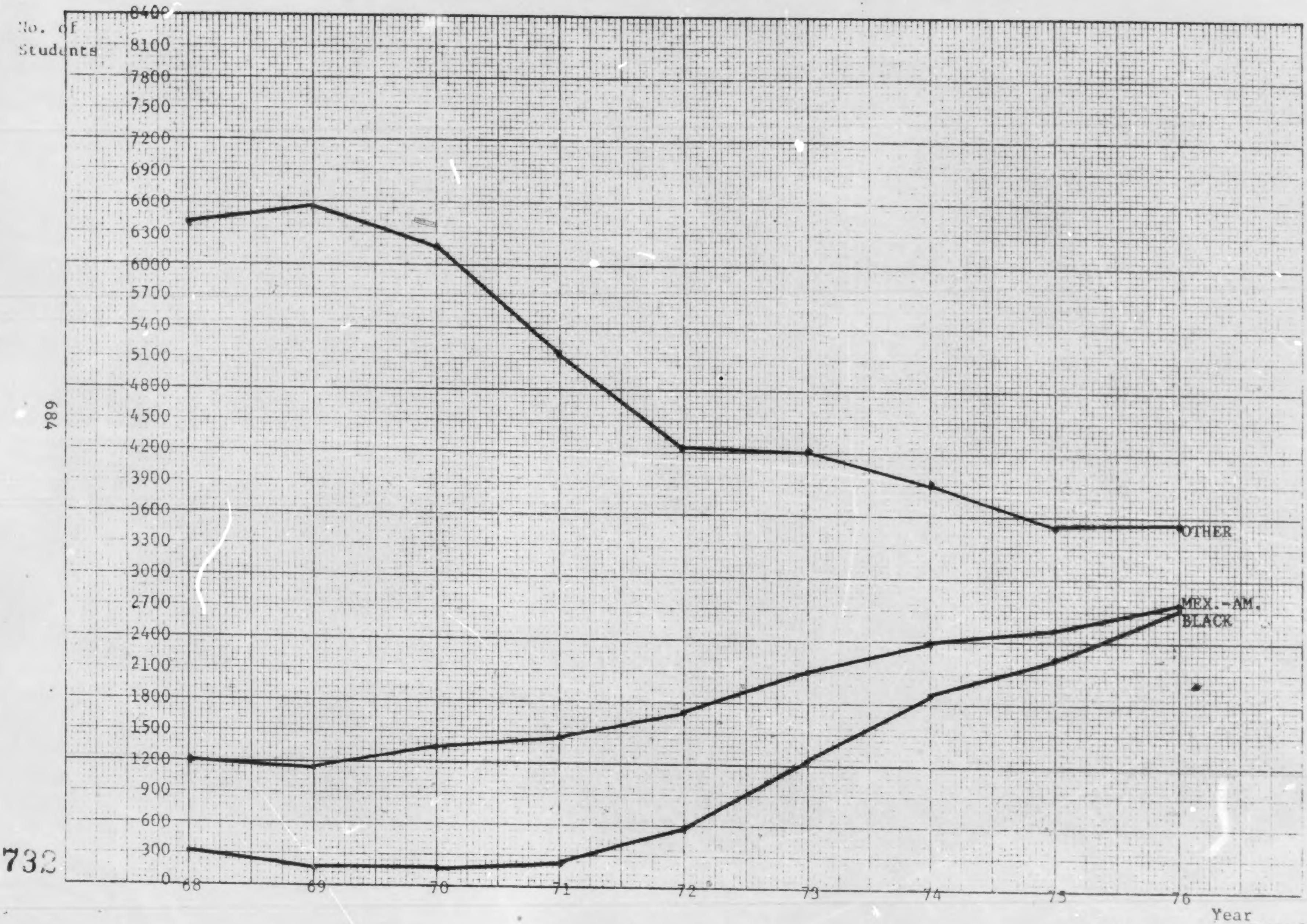
THE S.W. SUBDISTRICT FOR K-3



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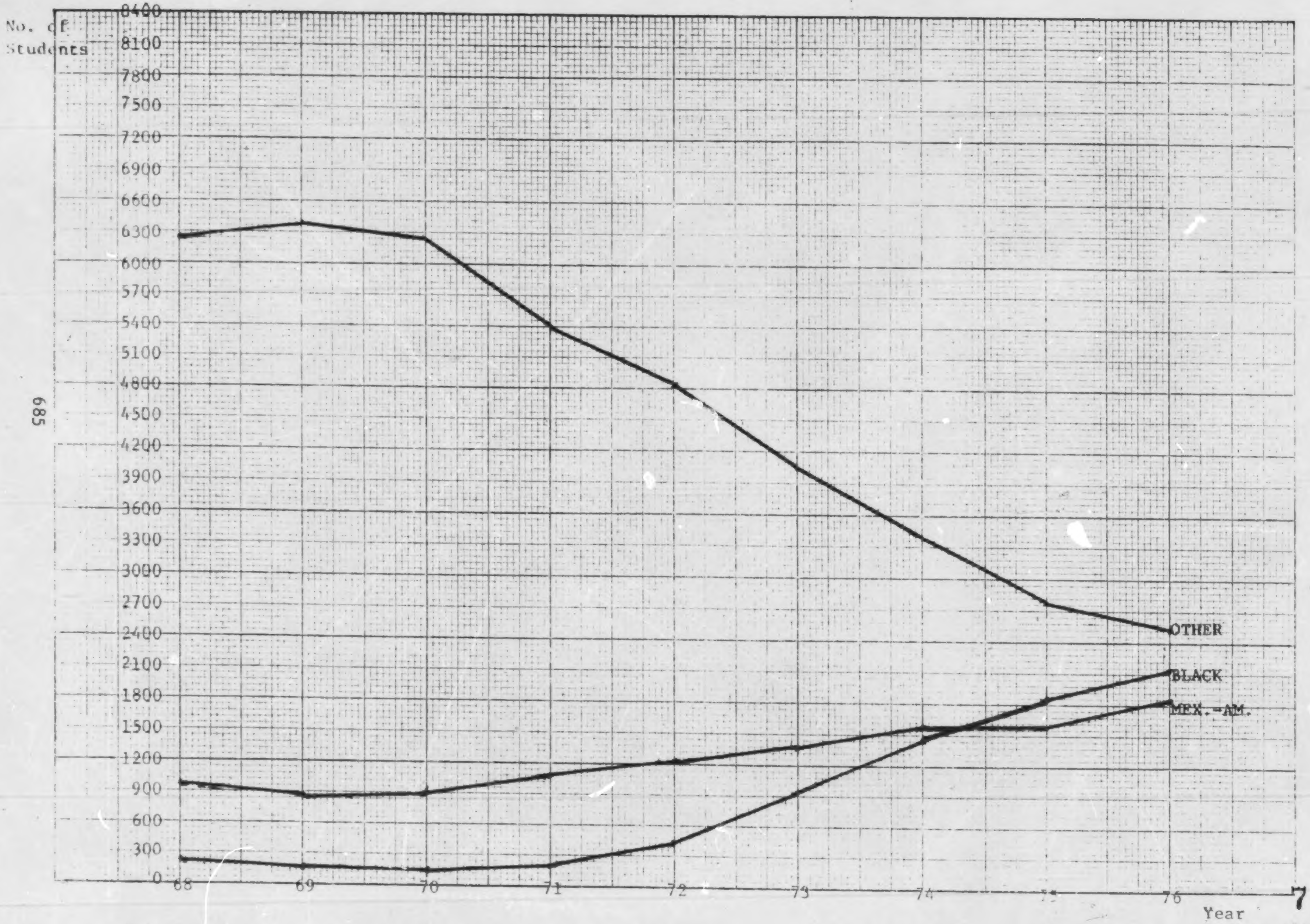
THE S.W. SUBDISTRICT FOR 4-6



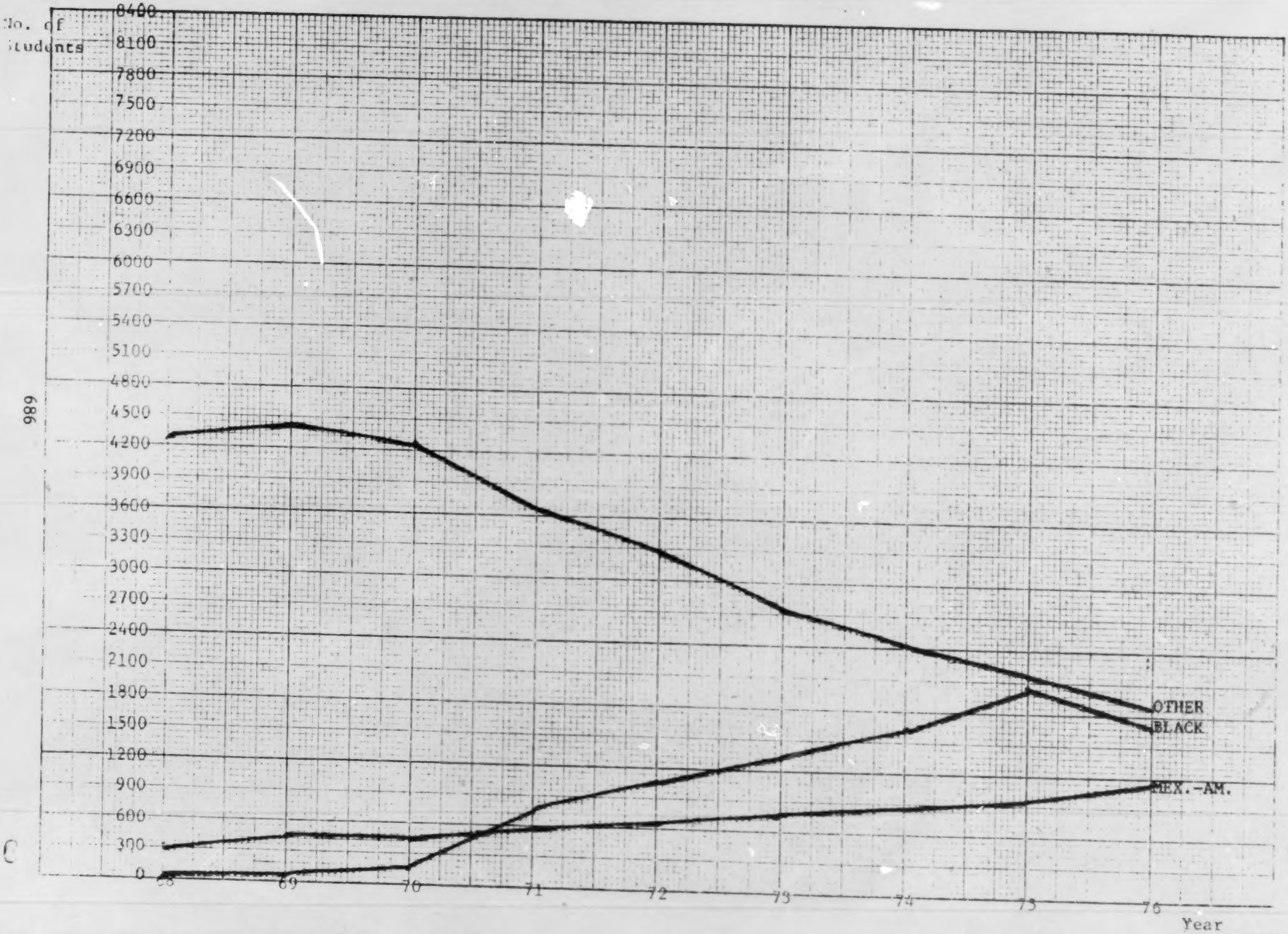
GRAPH#32

685

734

735

THE S.W. SUBDISTRICT FOR 7-8



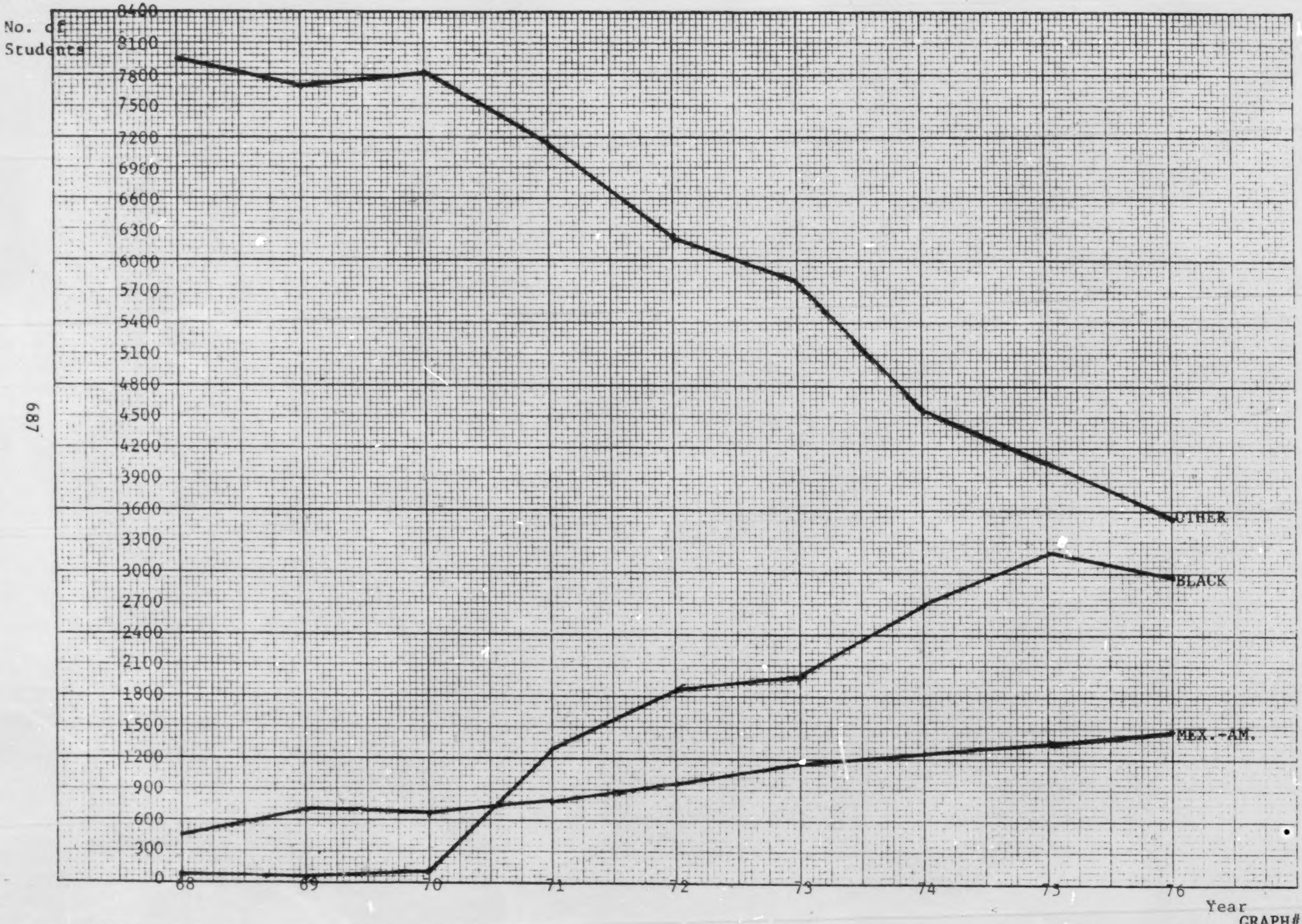
GRAPH#33

989

730

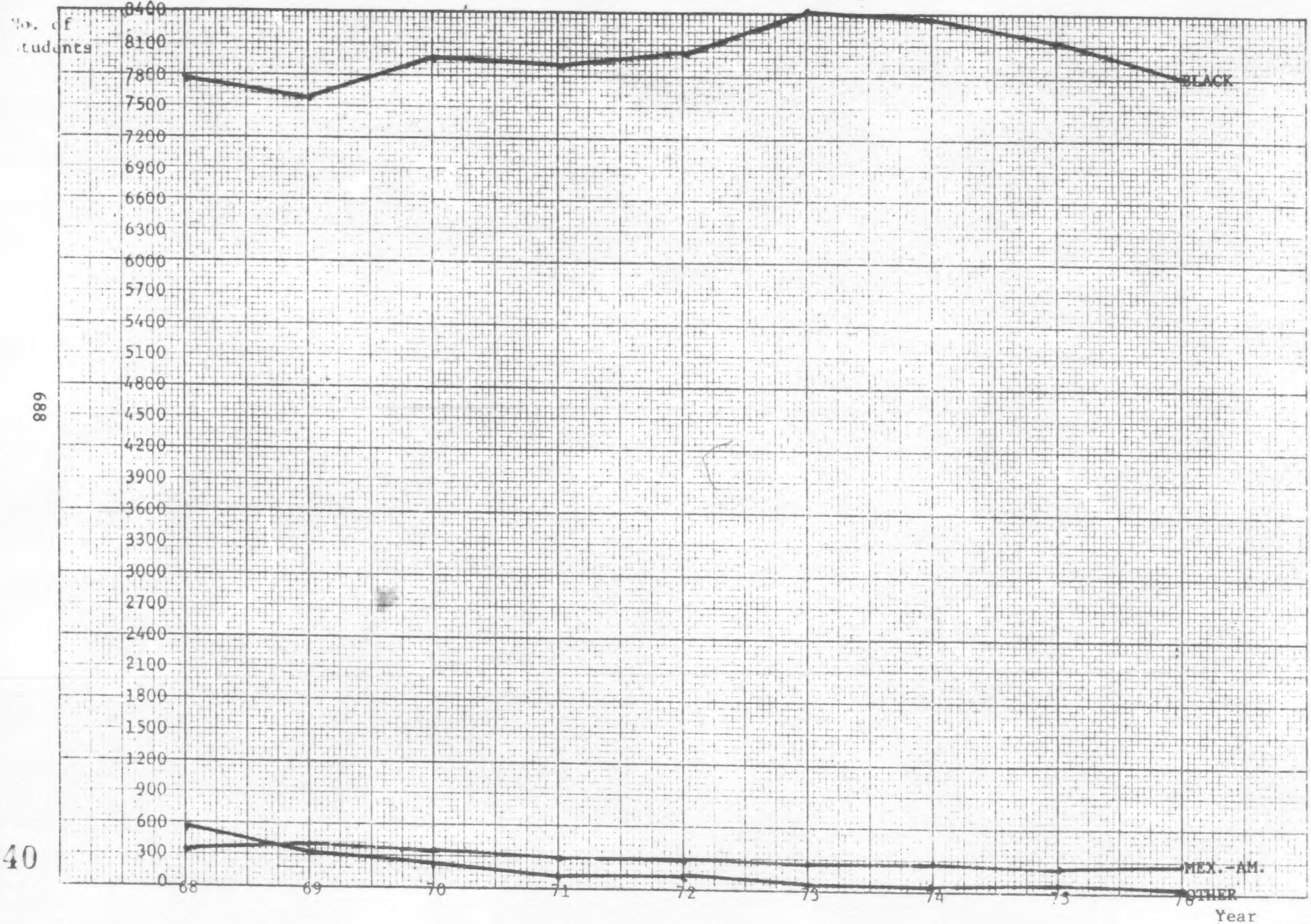
737

THE S.W. SUBDISTRICT FOR 9-12



GRAPH#34

THE E.O.C. SUBDISTRICT FOR K-3



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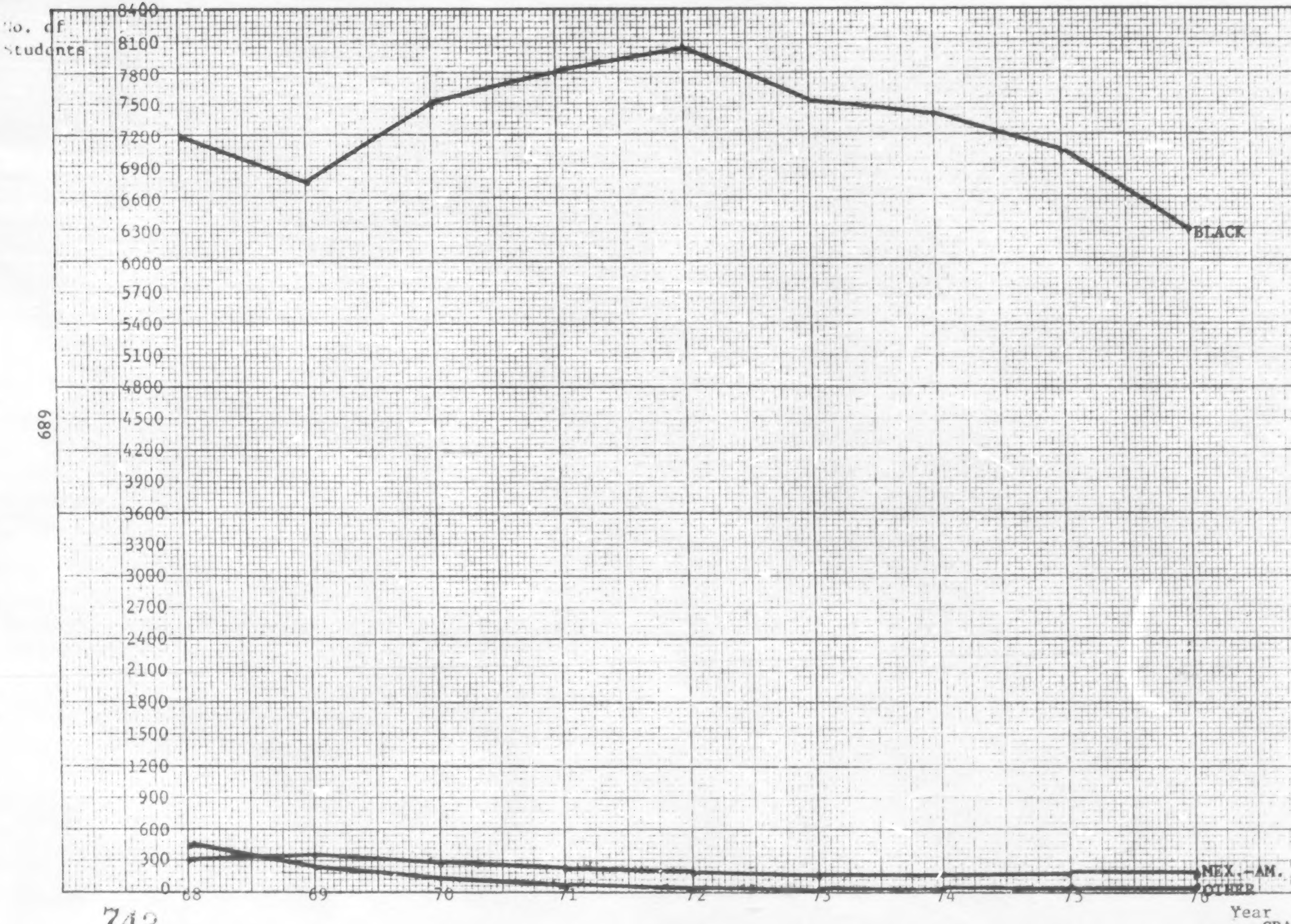
THE E.O.C. SUBDISTRICT FOR 4-6



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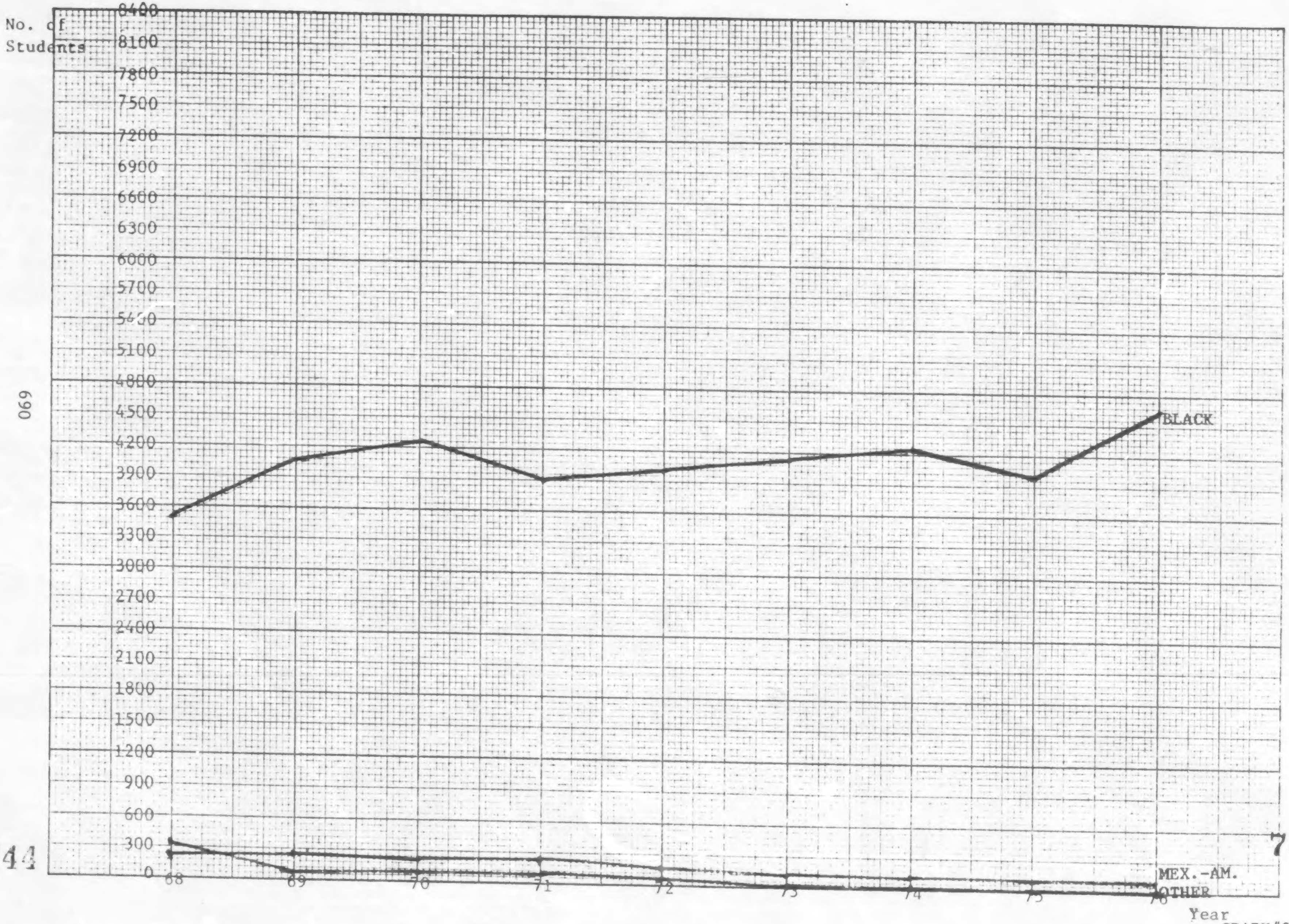
THE E.O.C. SUBDISTRICT FOR 7-8



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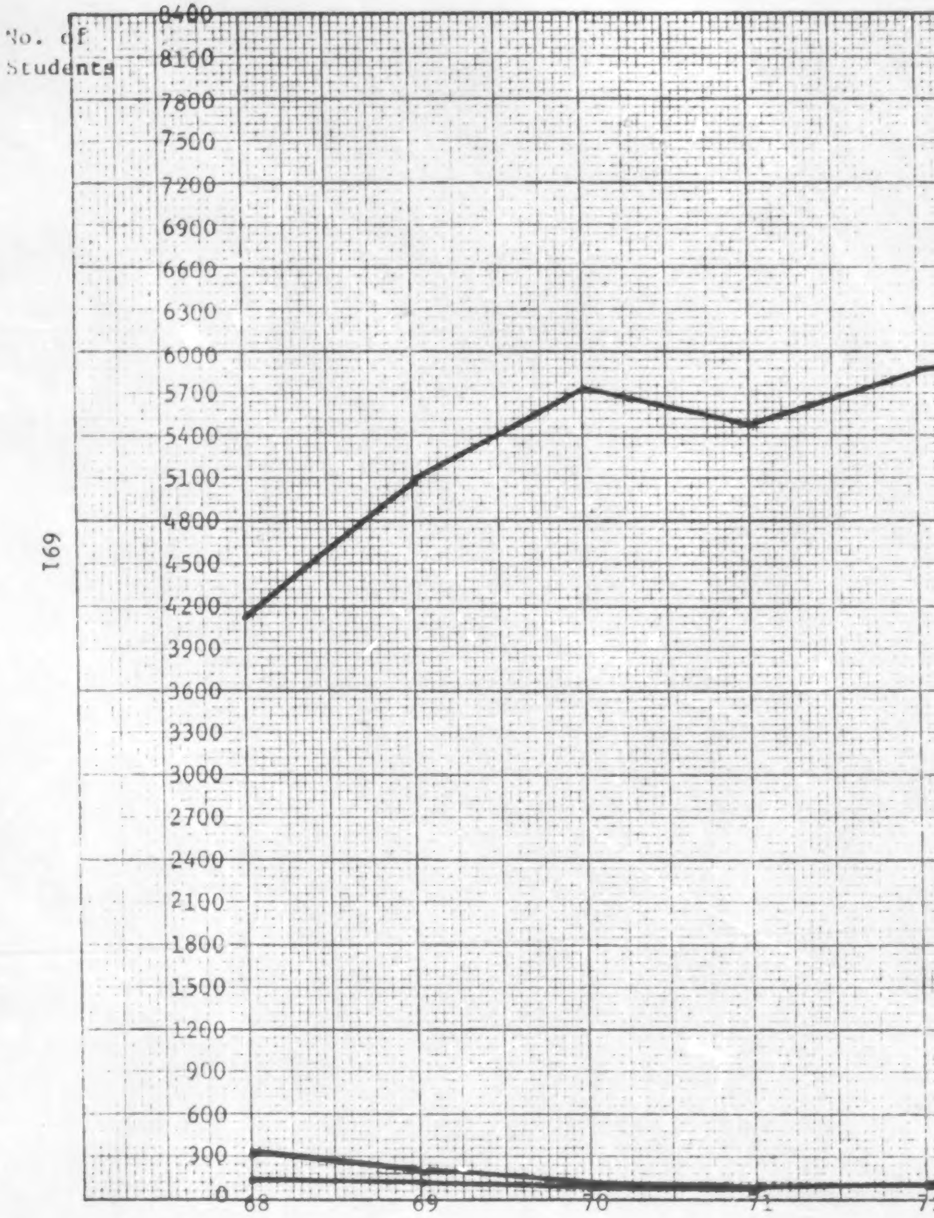
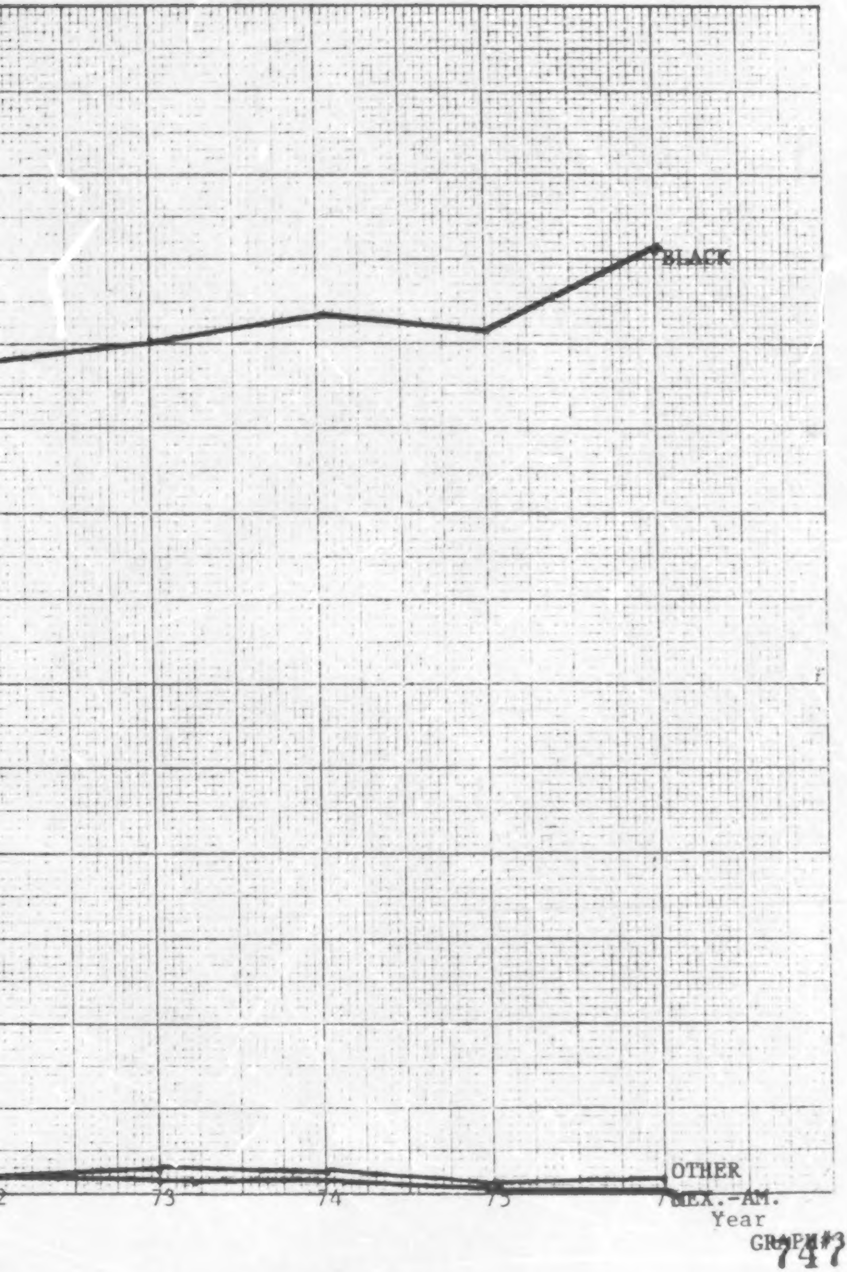
THE E.O.C. SUBDISTRICT FOR

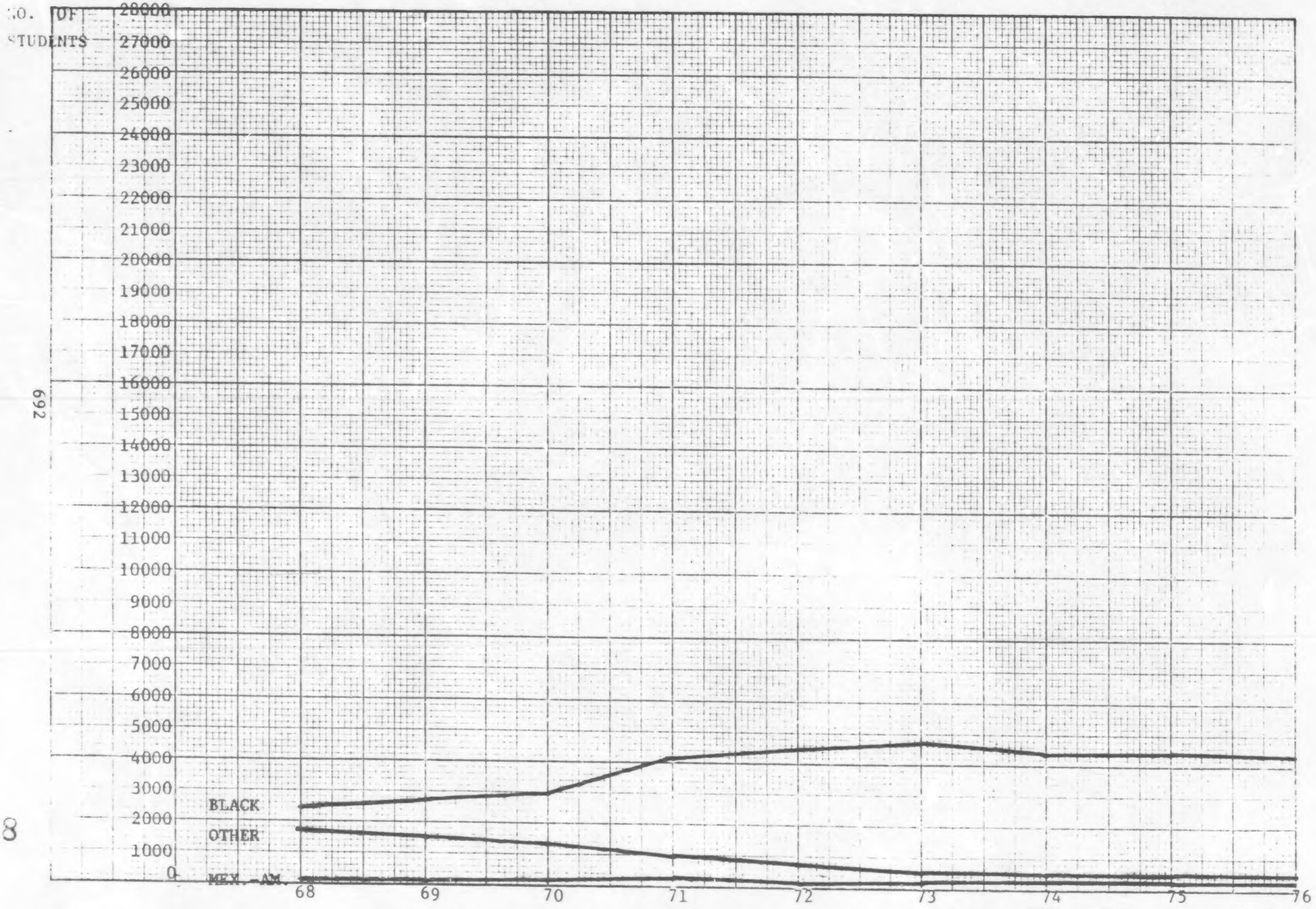


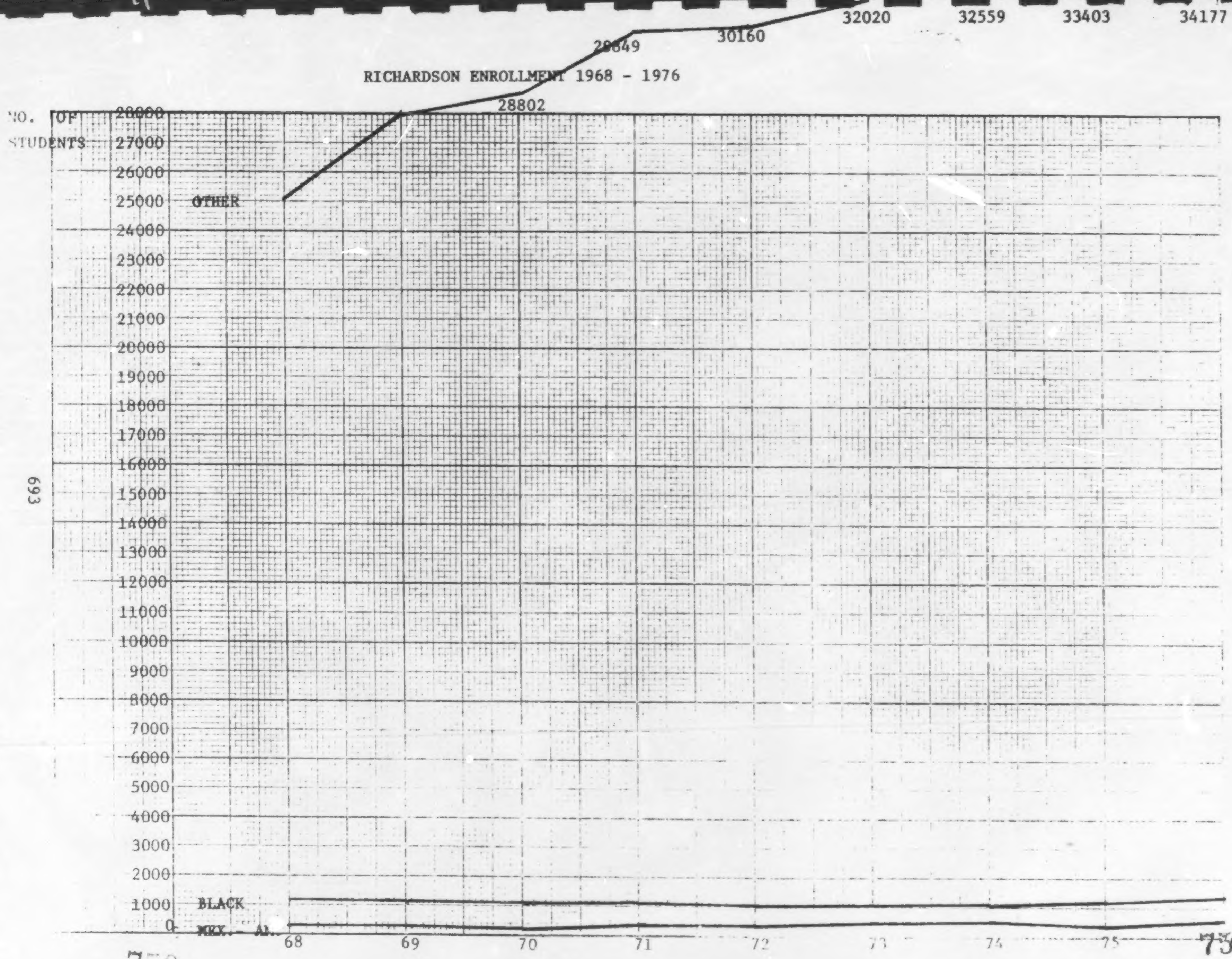
9-12



GRAPH #38

WILMER - HUTCHINS ENROLLMENT 1968 - 1976

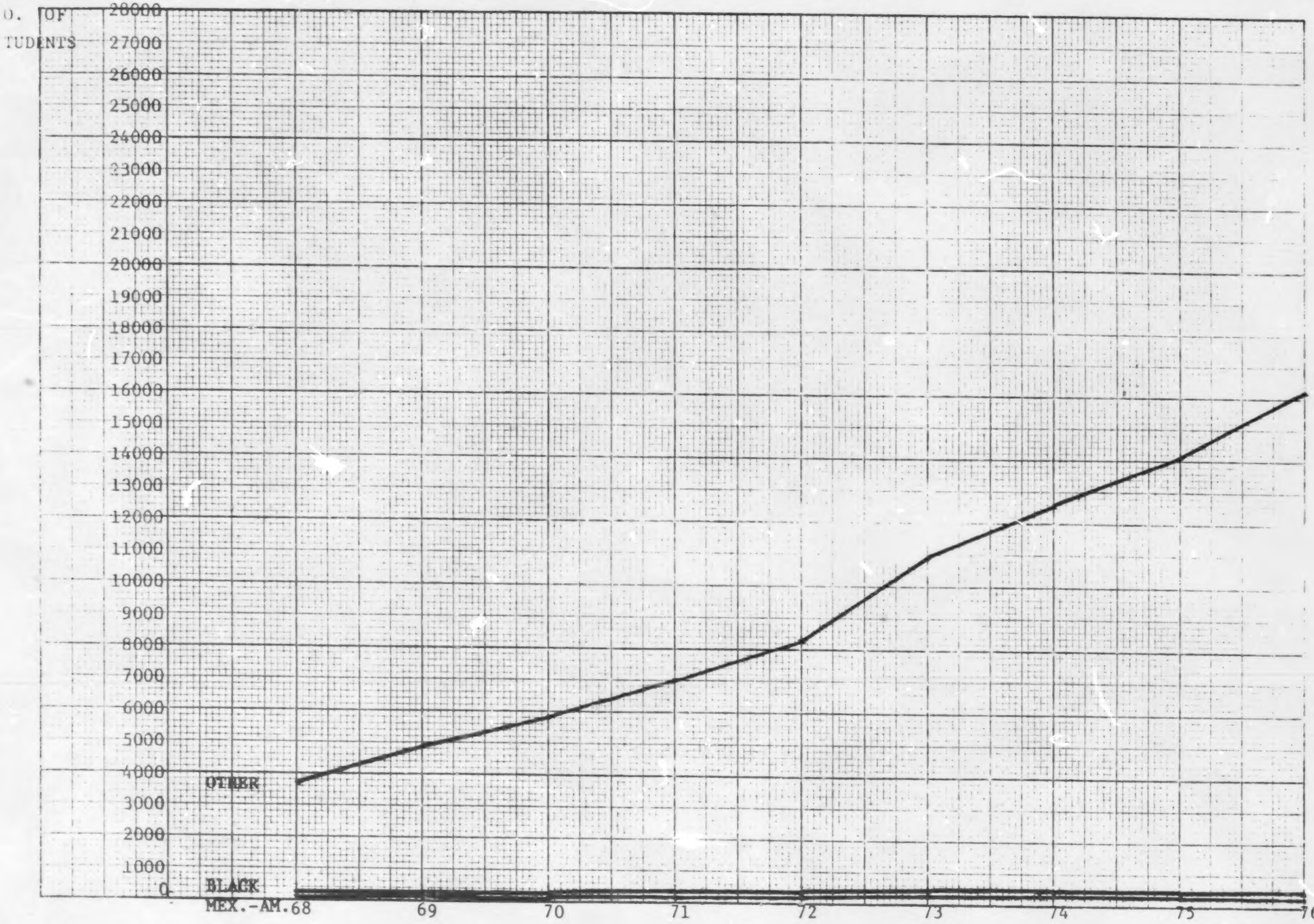




RICHARDSON ENROLLMENT 1968 - 1976

GRAPH#40

PLANO ENROLLMENT 1968 - 1976



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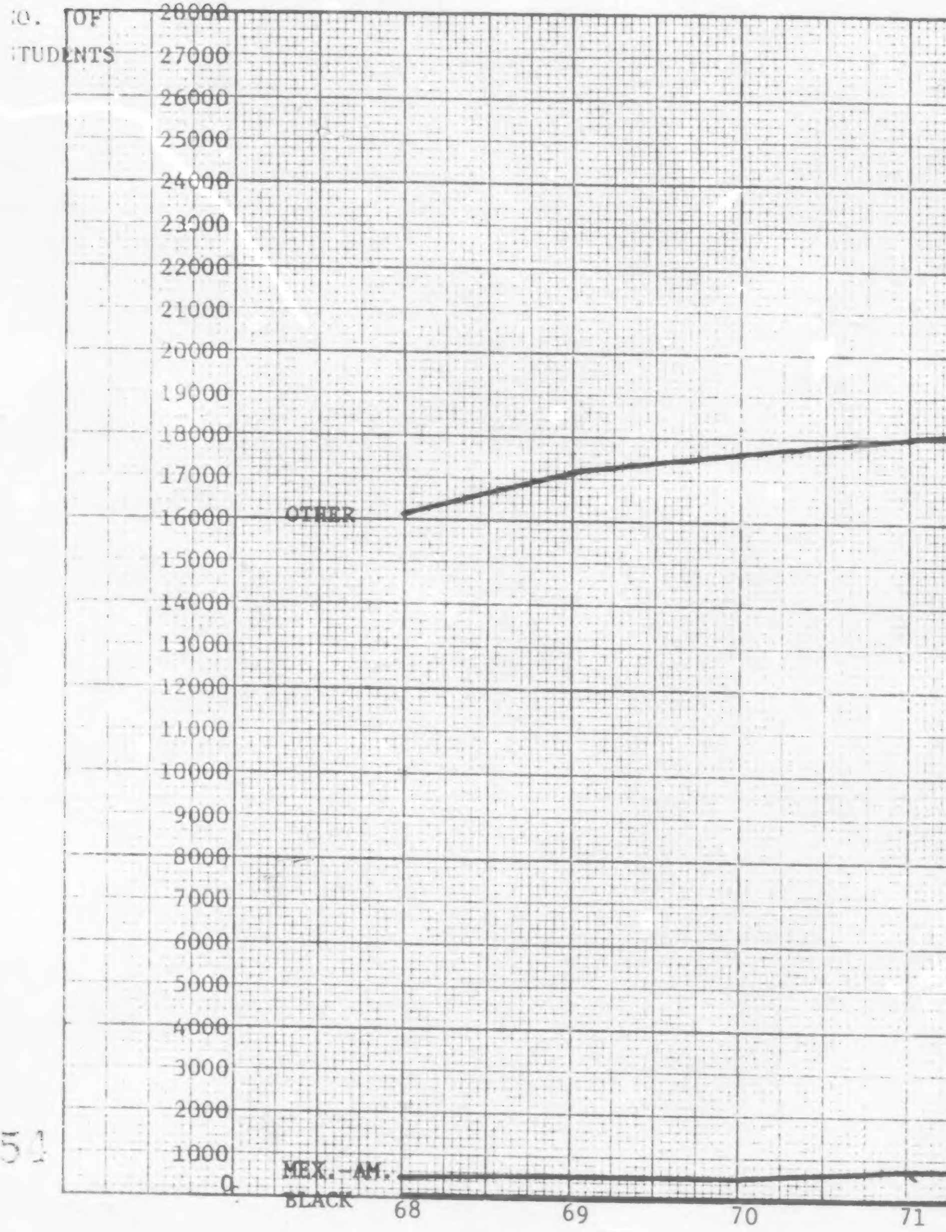
MESQUITE ENROLLMENT 1968 - 197



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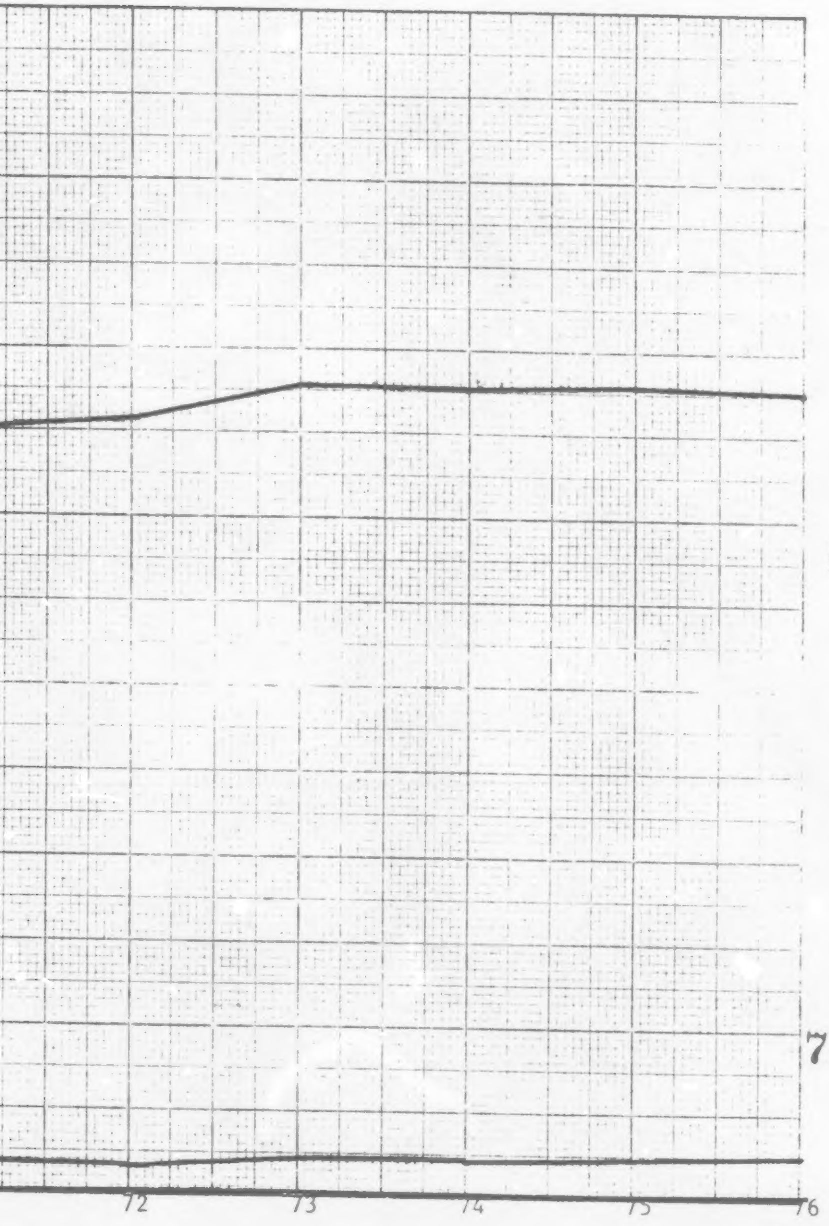
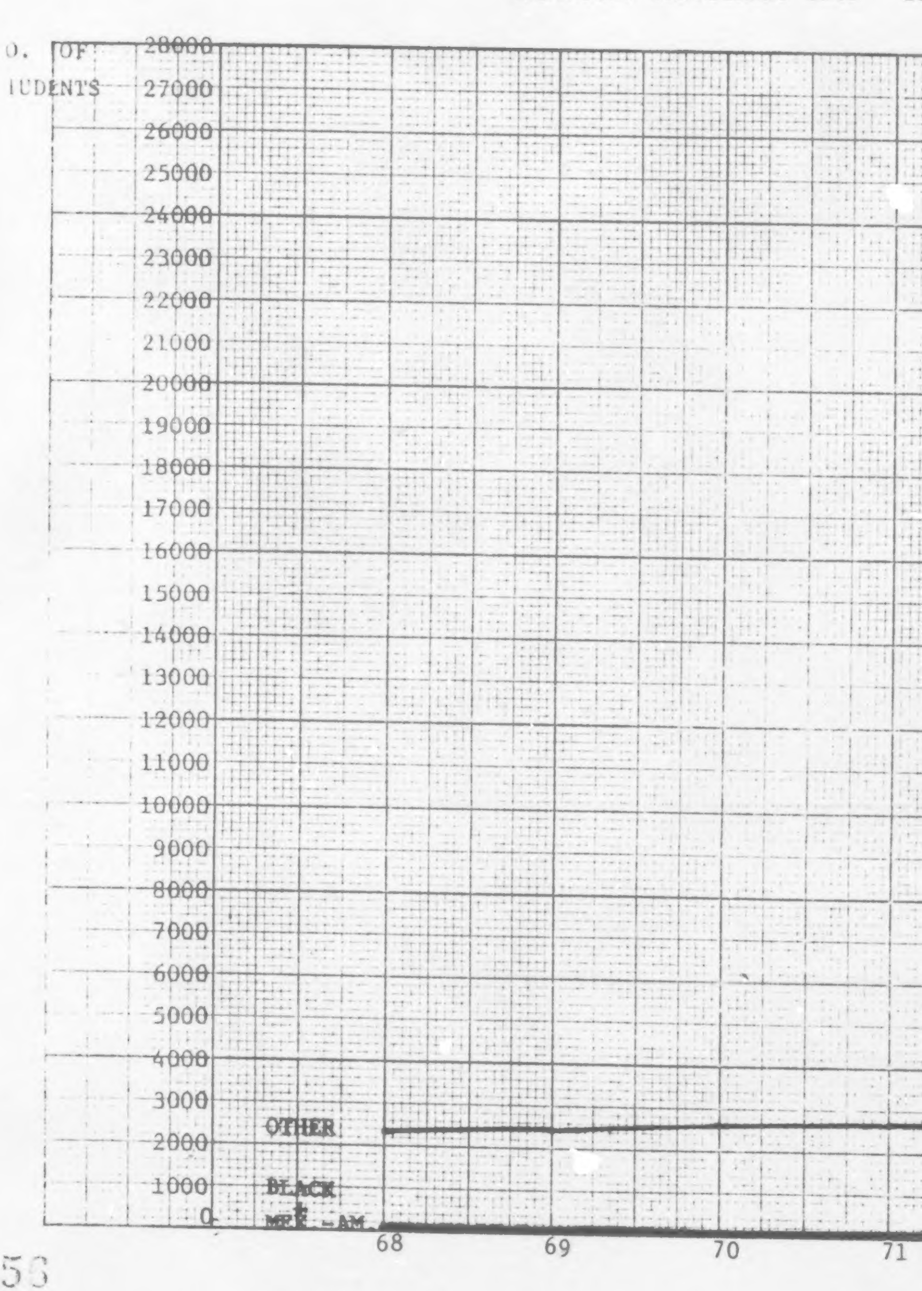


GRAPH#42

LANCASTER ENROLLMENT 1968 - 19



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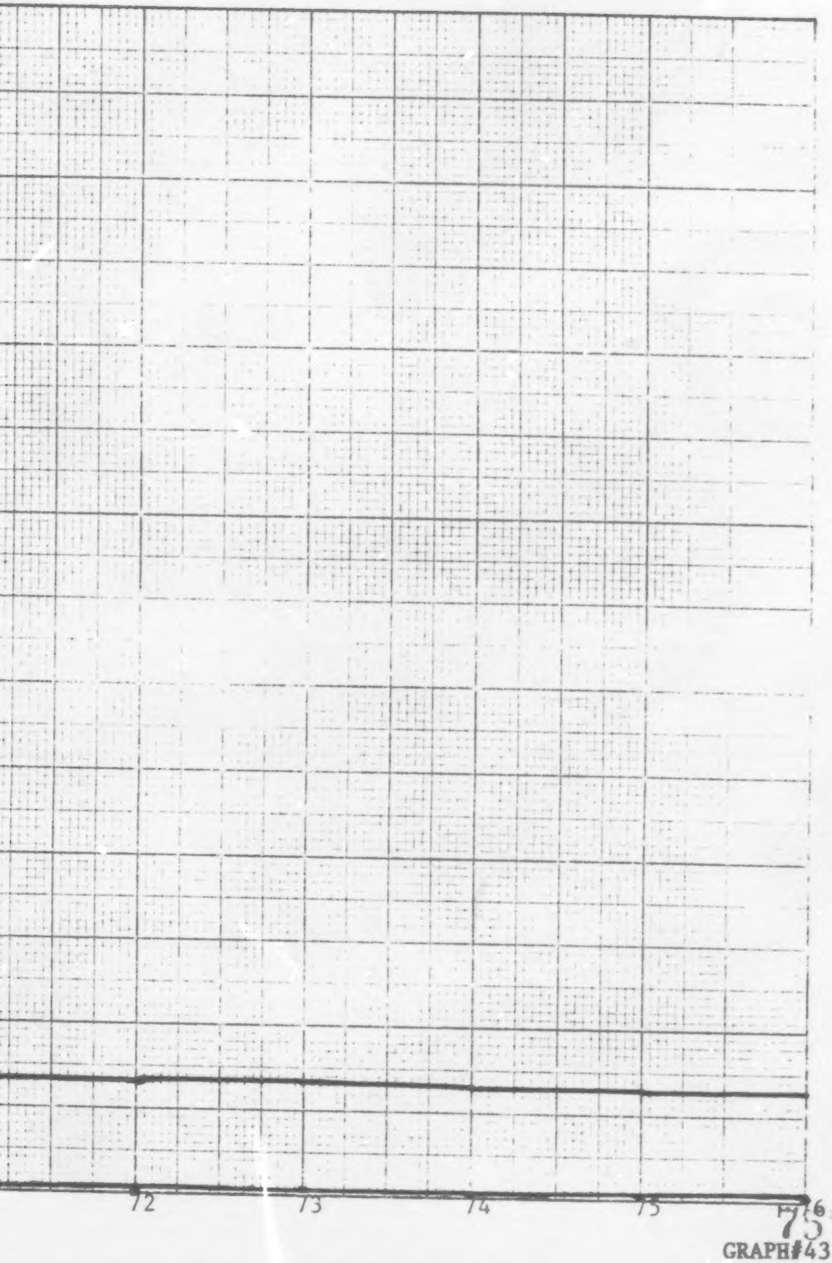
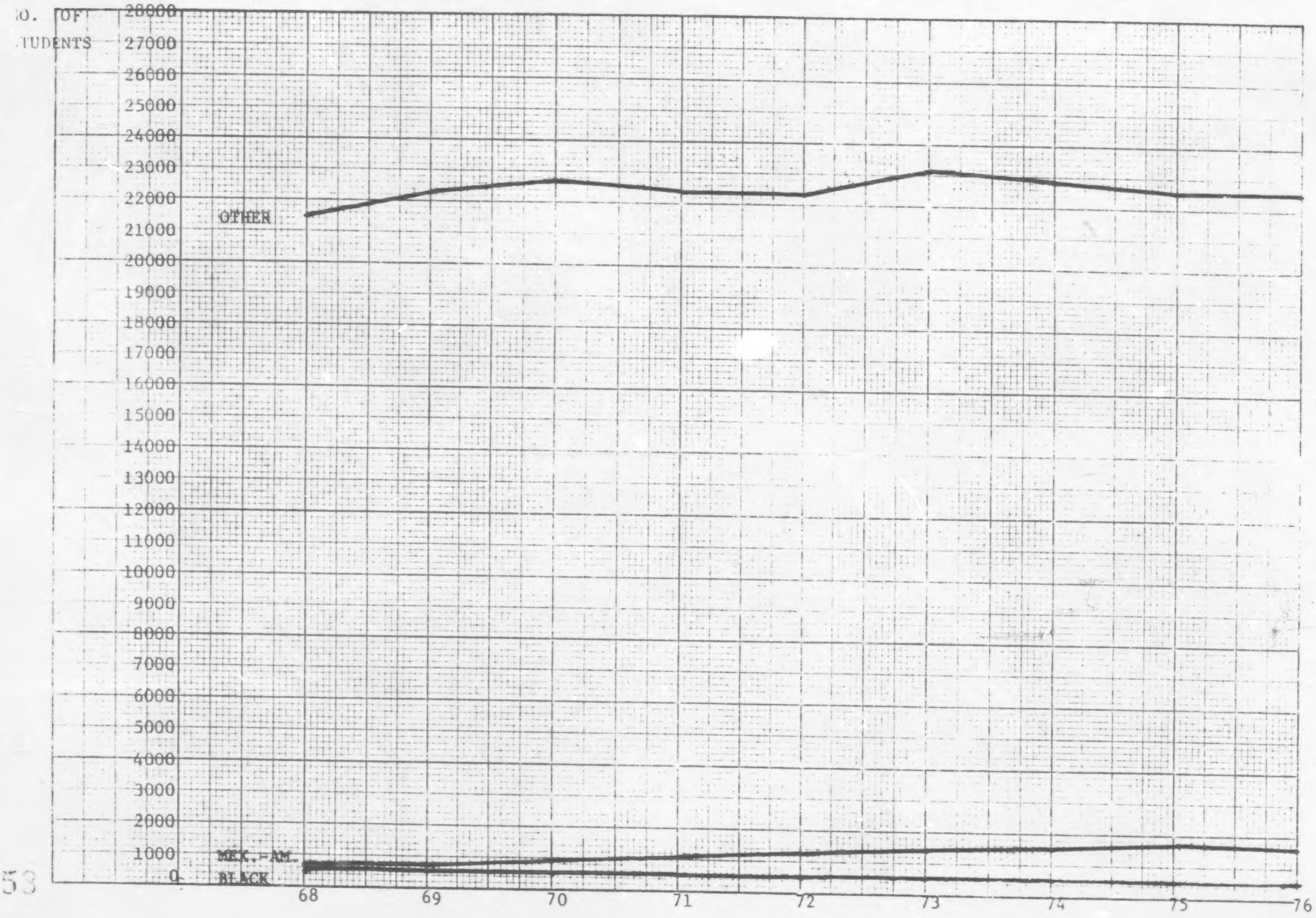


GRAPH#43

IRVING ENROLLMENT 1968 - 1976



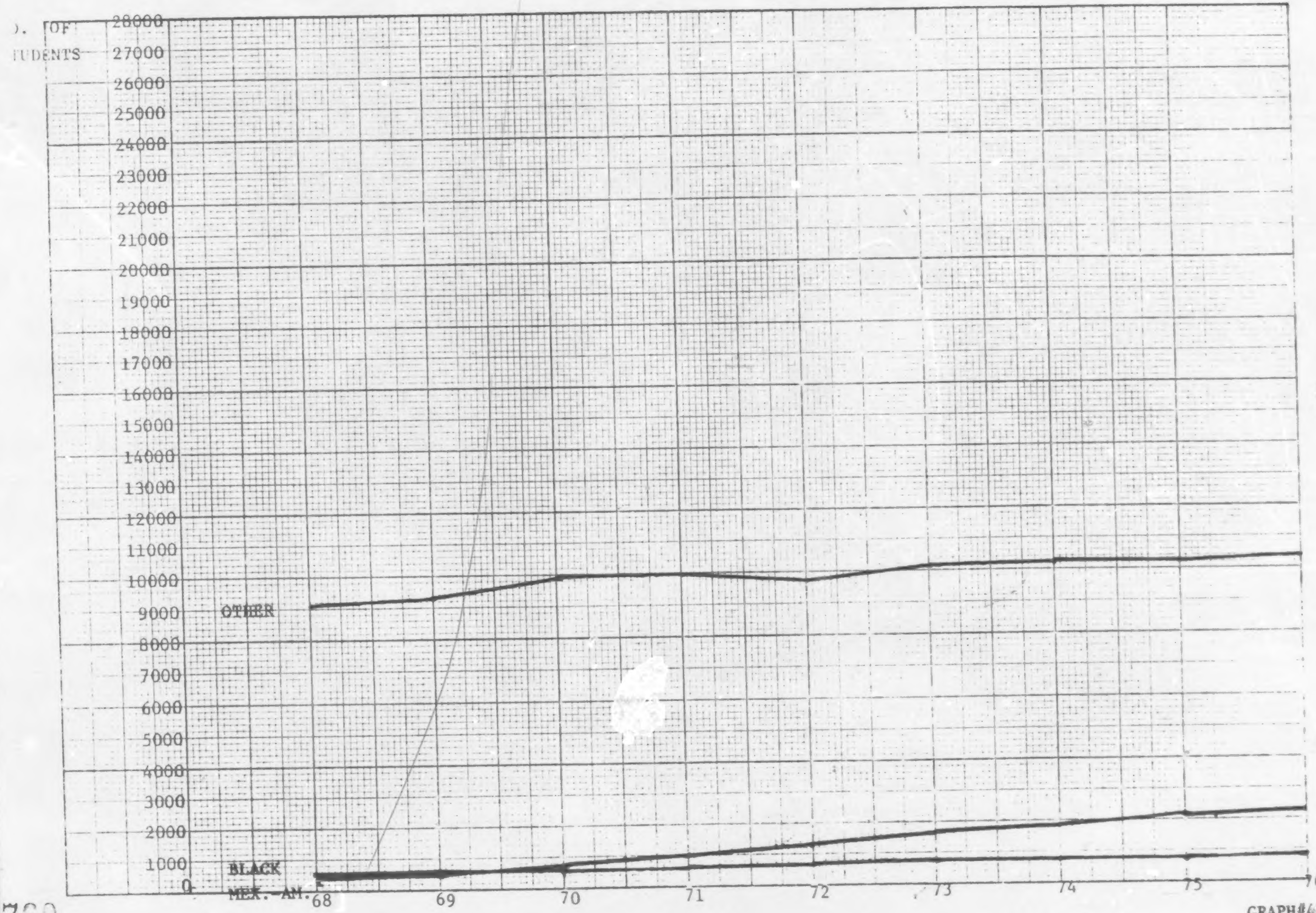
GRAPH#44

697

759

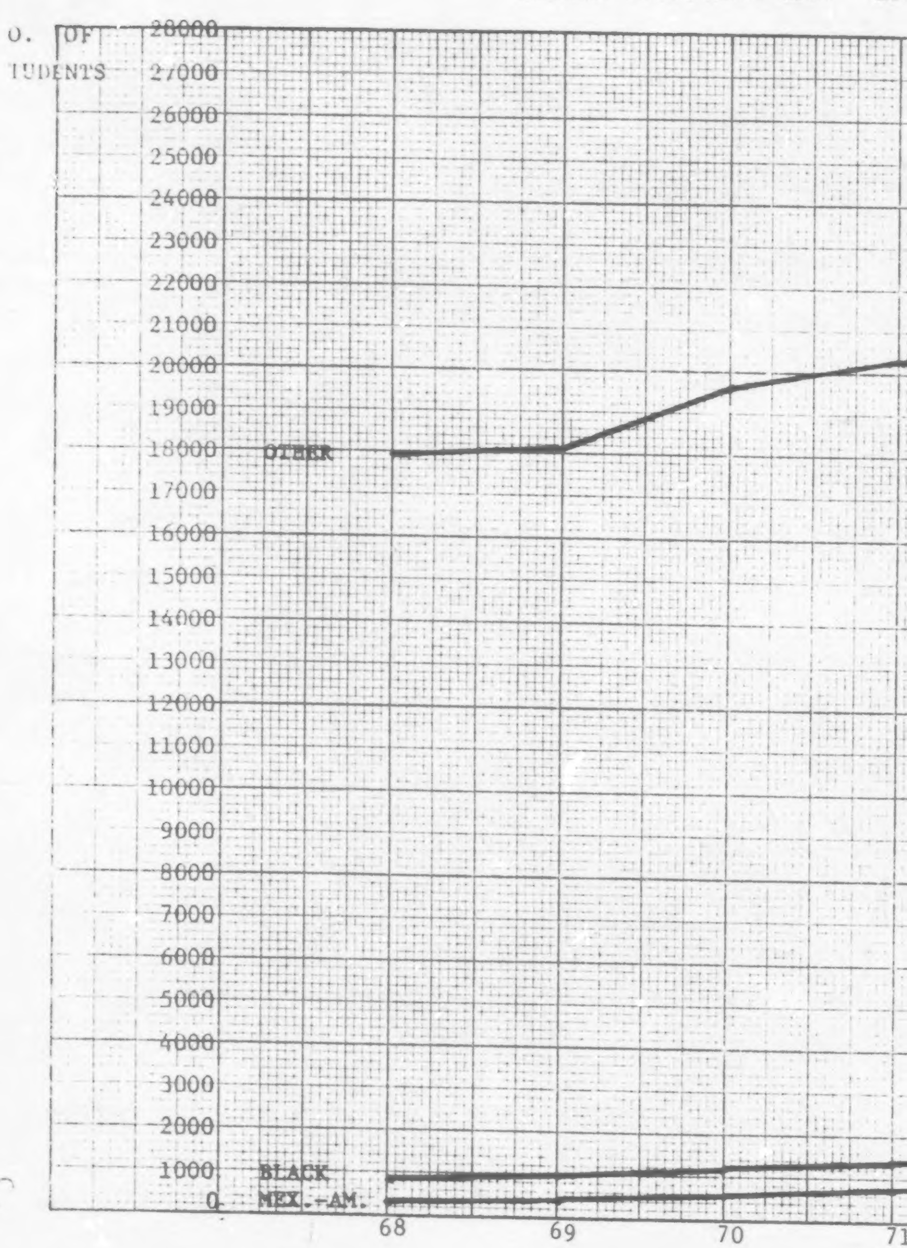
753

GRAND PRAIRIE ENROLLMENT 1968 - 1976

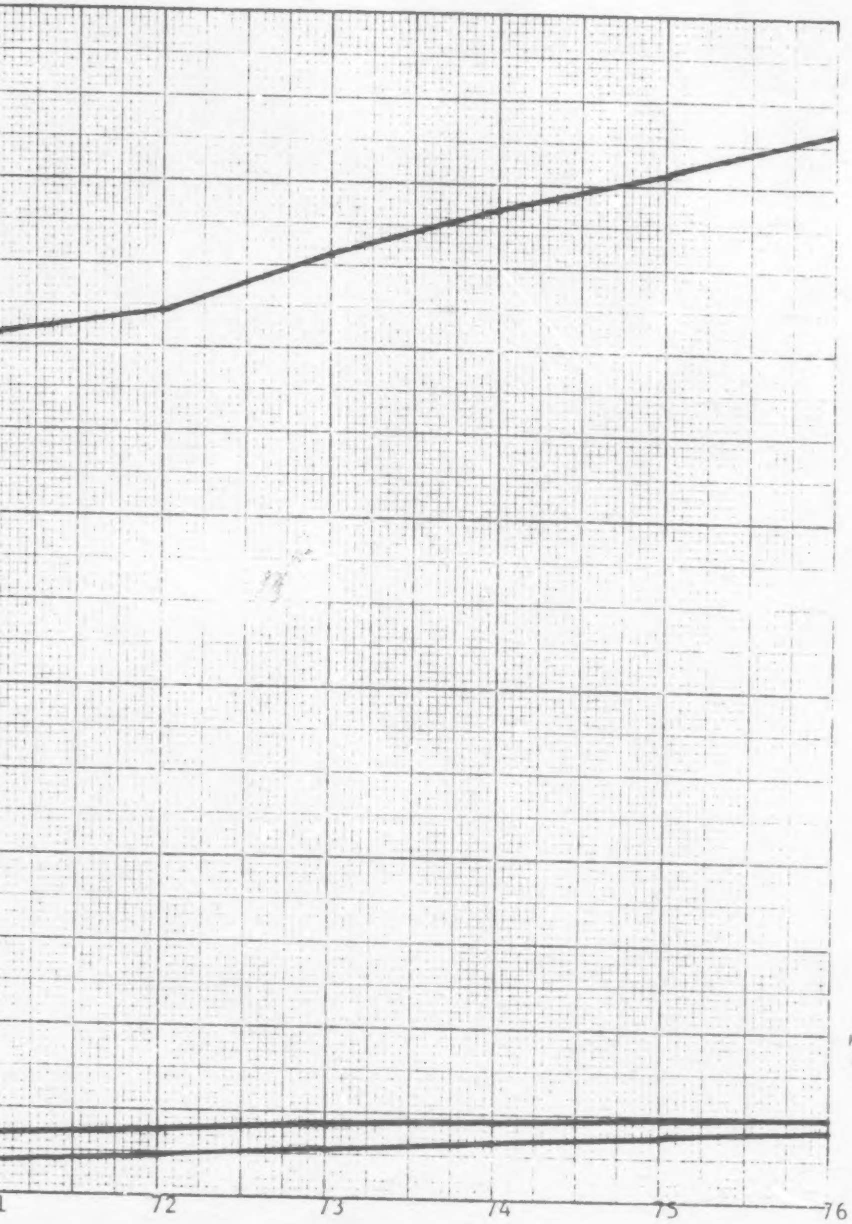


GRAPH#45

GARLAND ENROLLMENT 1968 - 19

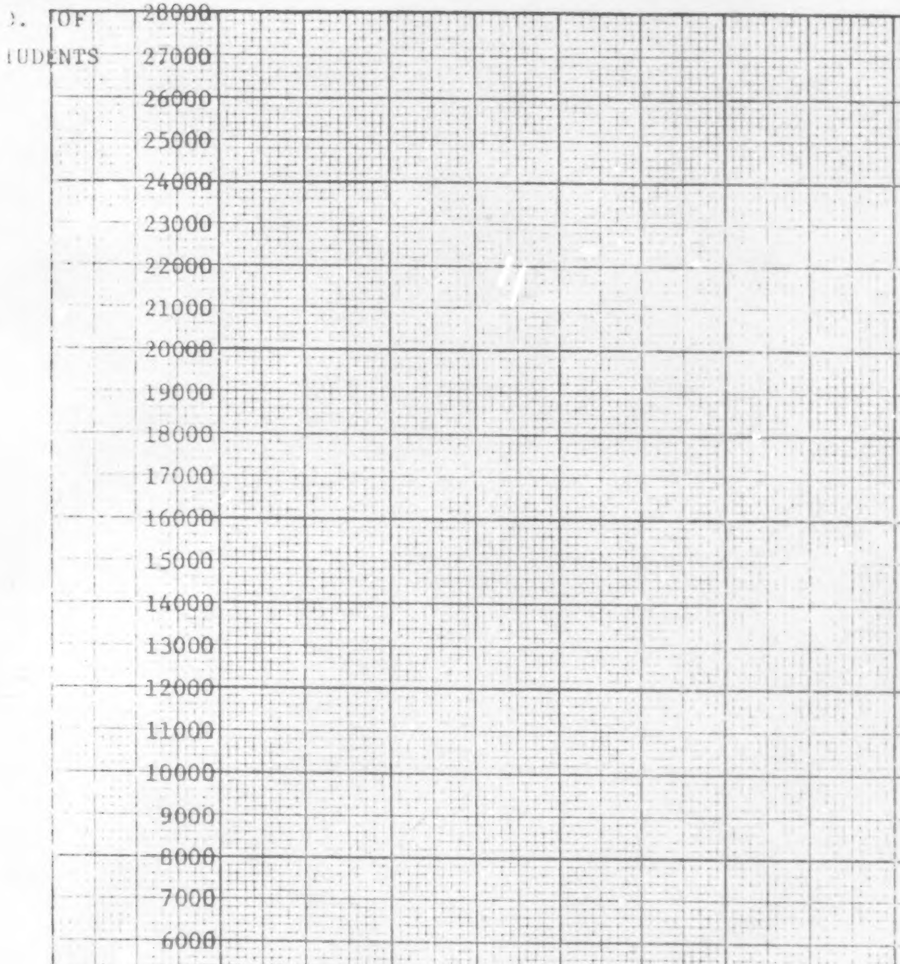


76

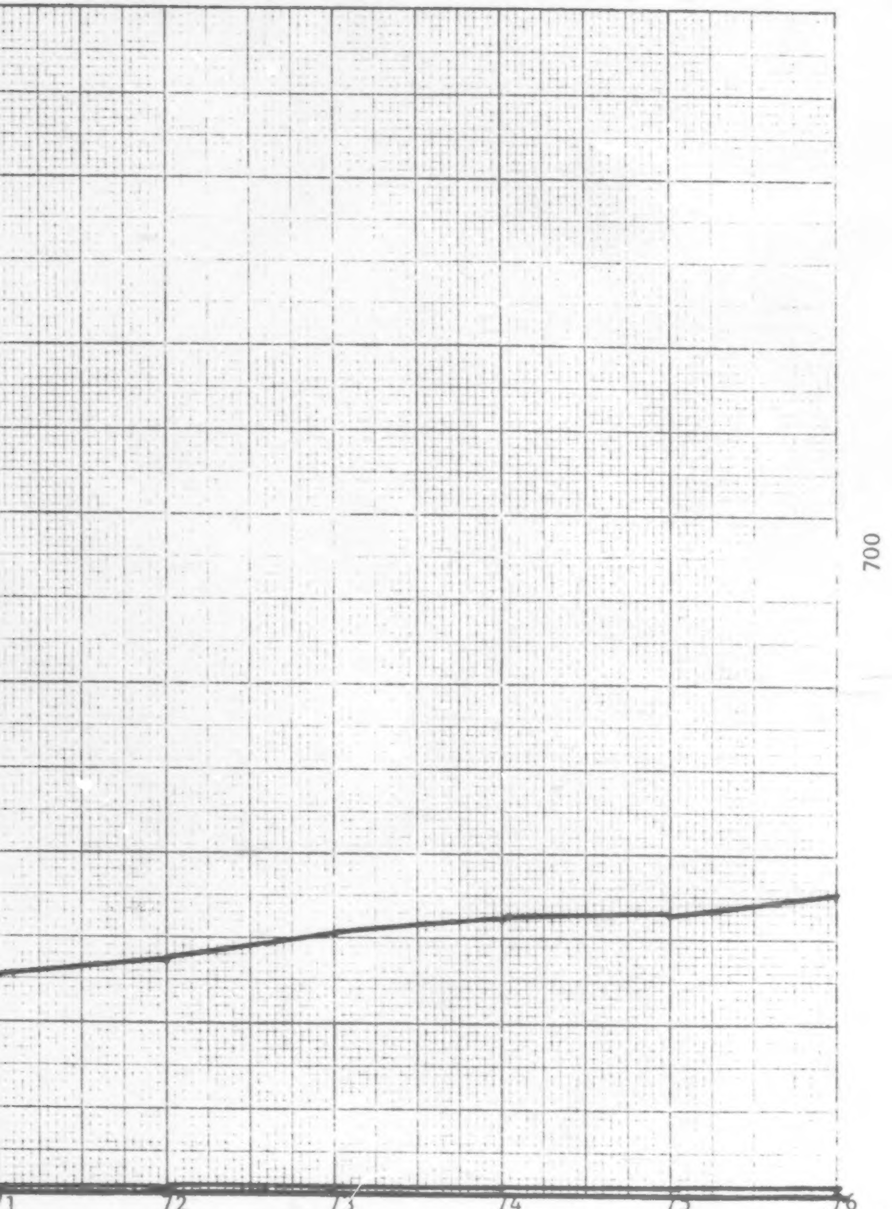


GRAPH#46

DUNCANVILLE ENROLLMENT 1968 -

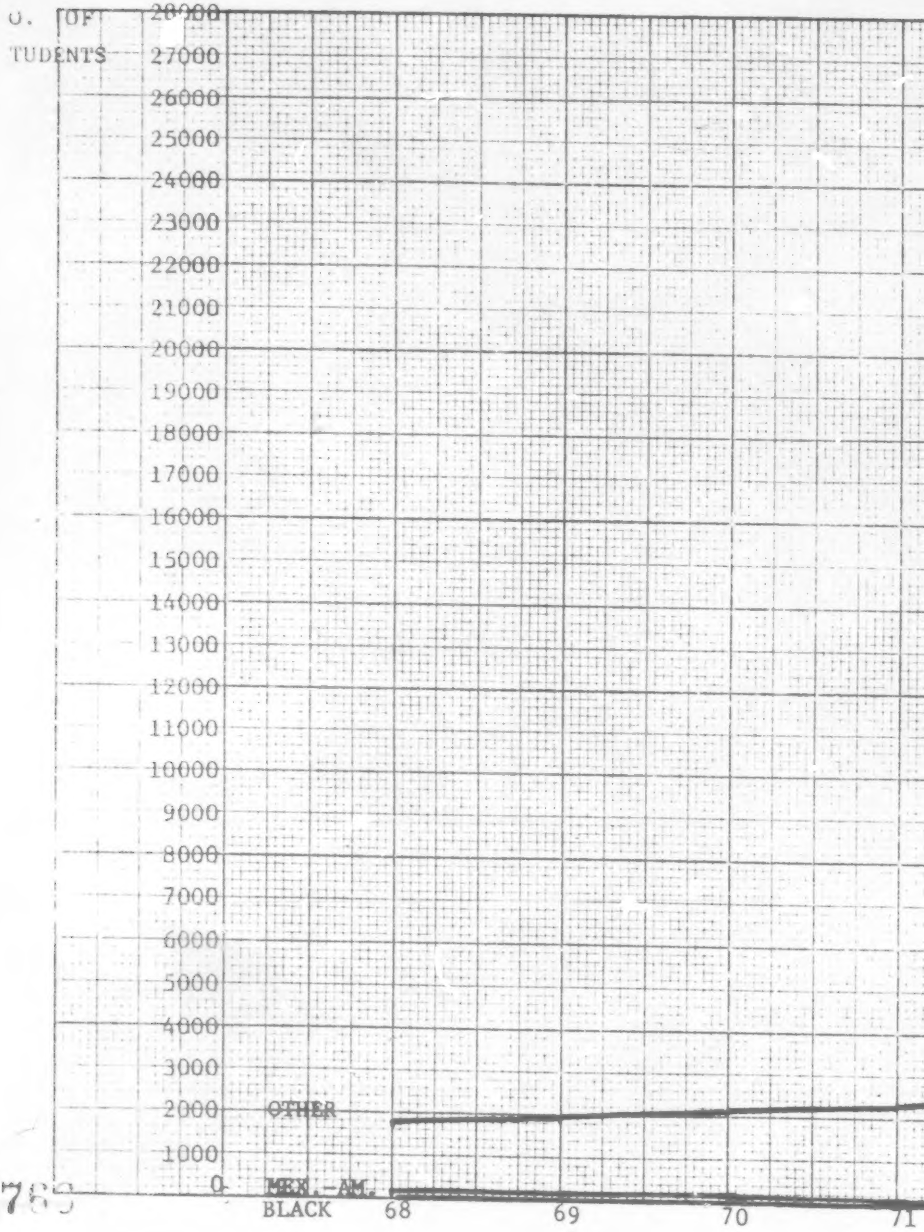


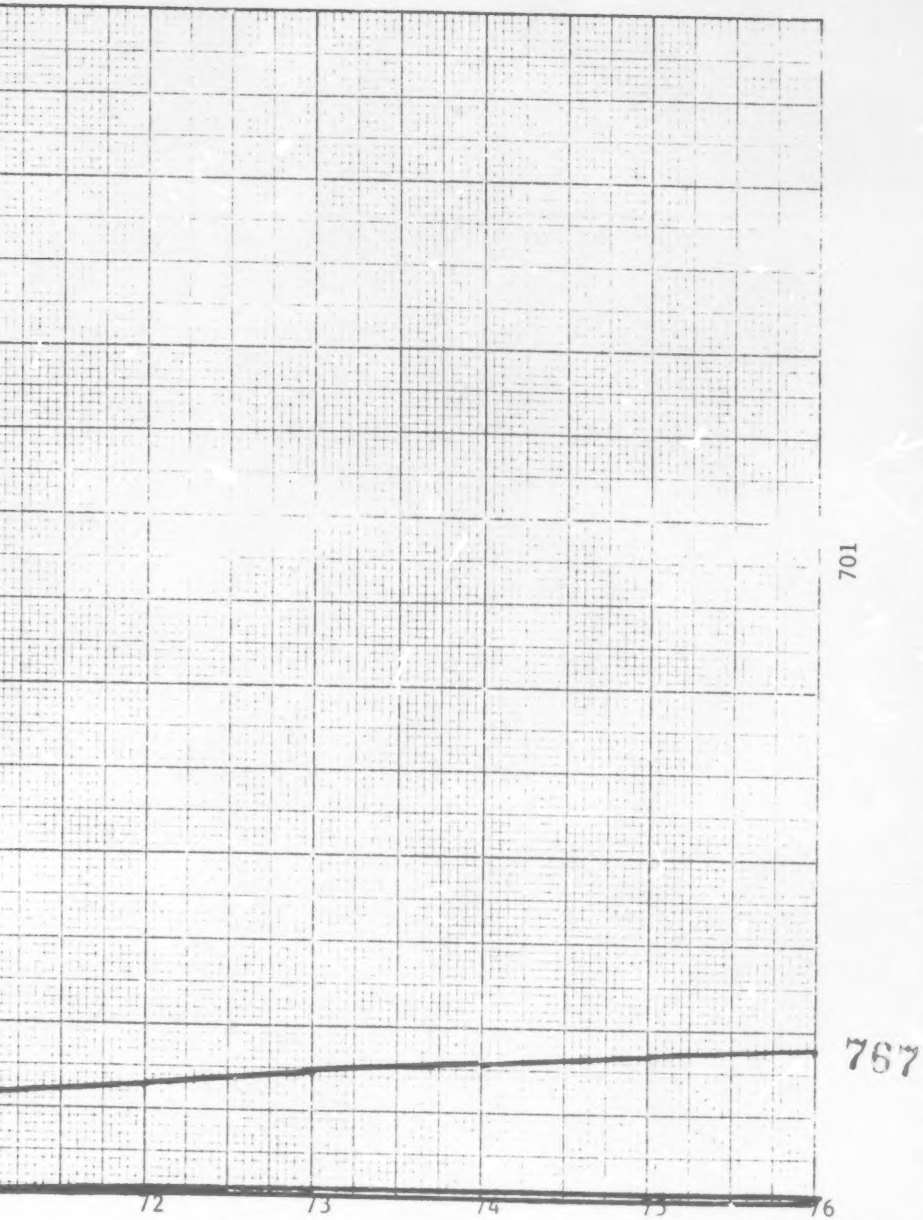
– 1976



GRAPH #47

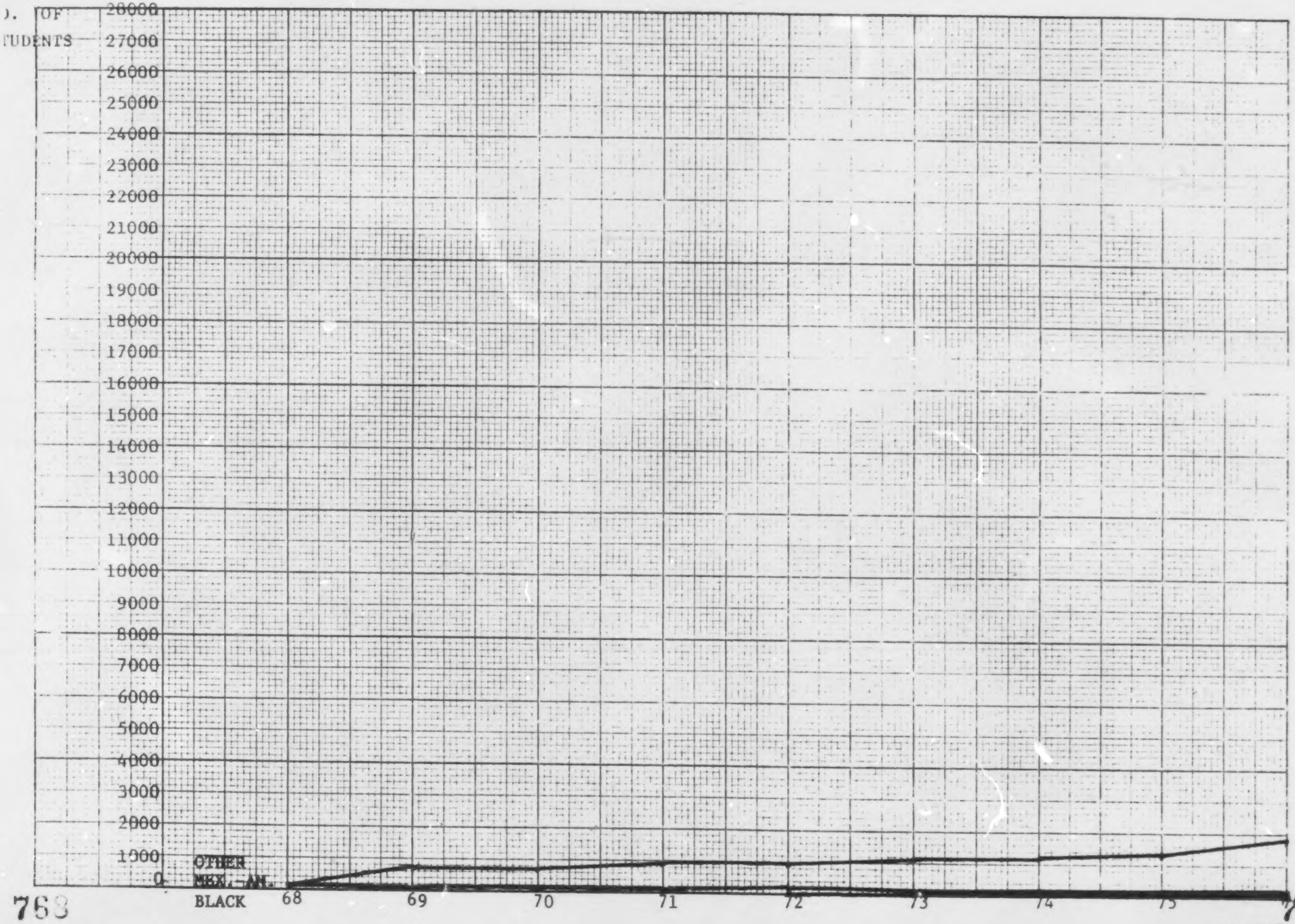
DESOTO ENROLLMENT 1968 - 1976





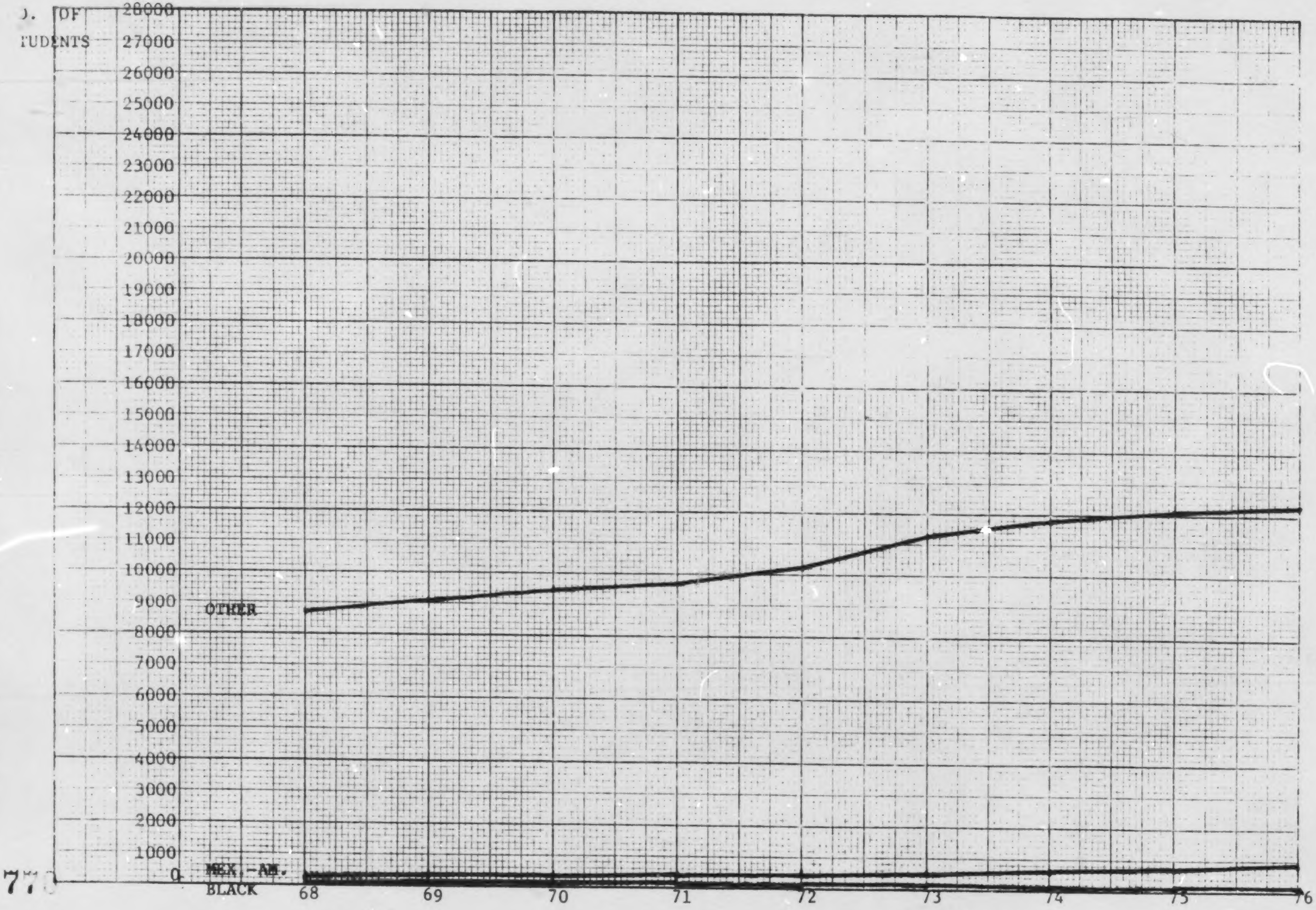
GRAPH#48

CEDAR HILL ENROLLMENT 1968 - 1976



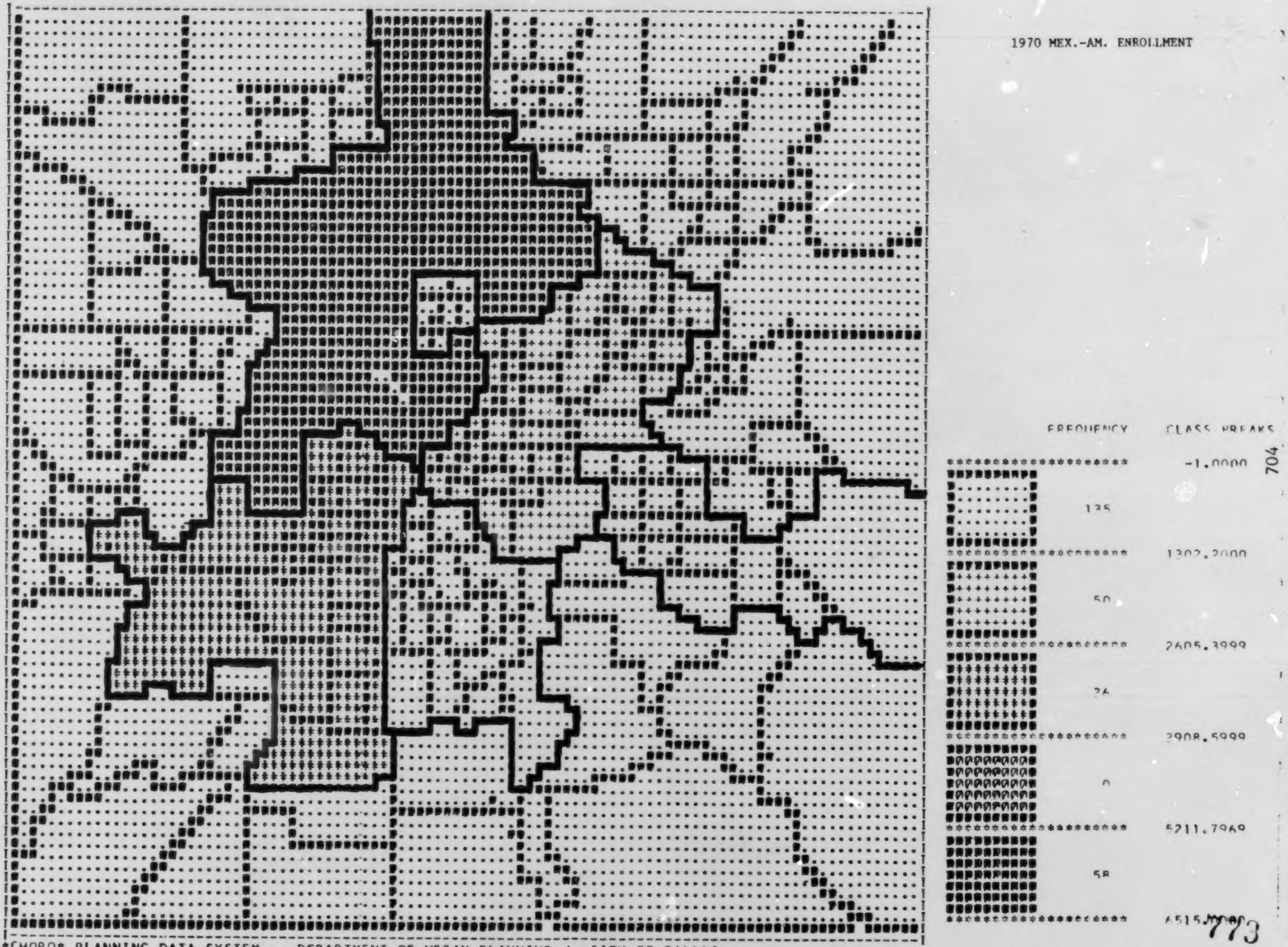
GRAPH#49

CARROLLTON - FARMERS BRANCH ENROLLMENT 1968 - 1976



GRAPH#50

1970 MEX.-AM. ENROLLMENT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26
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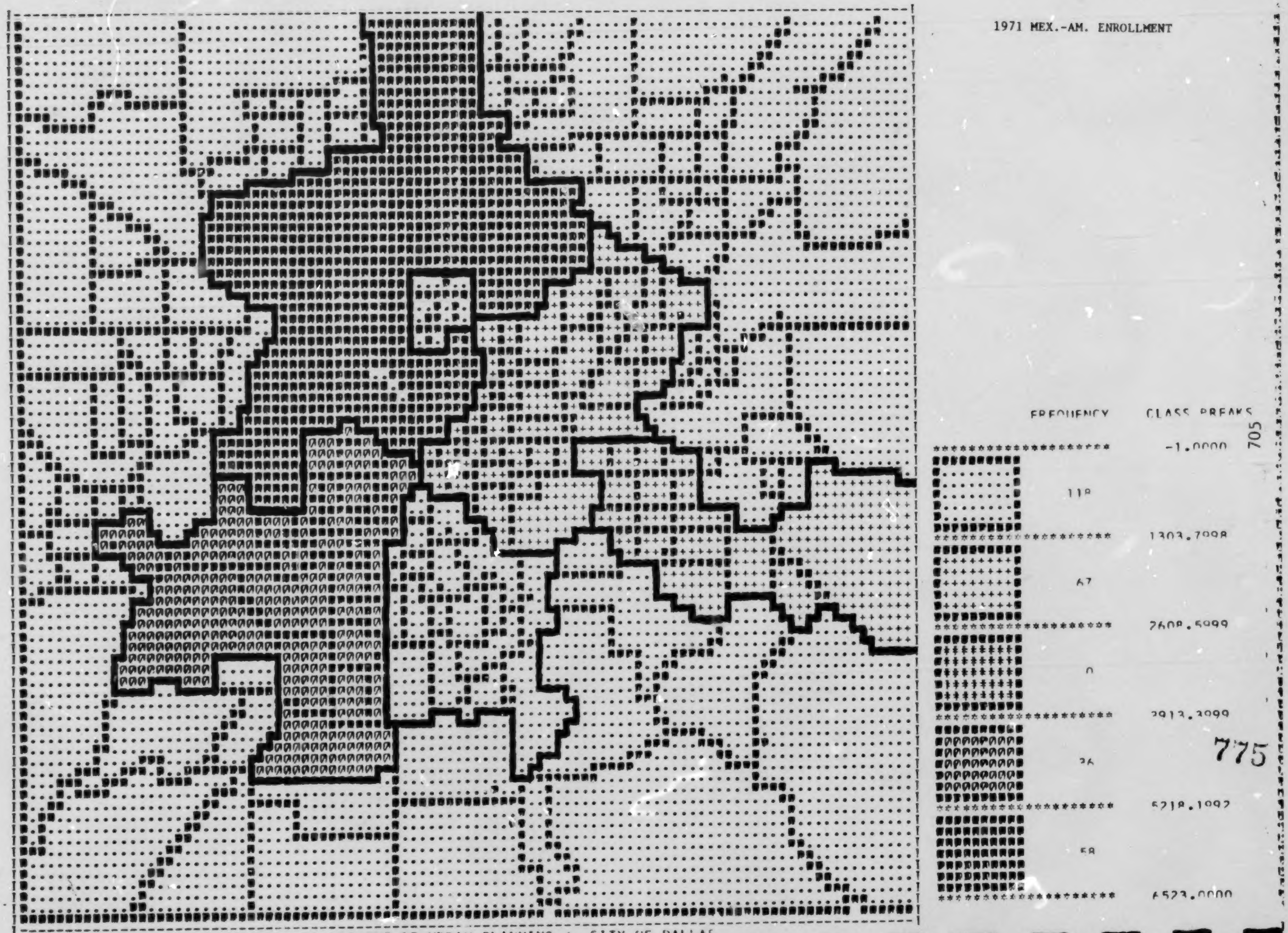
58
6515.0000

CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1971 MEX.-AM. ENROLLMENT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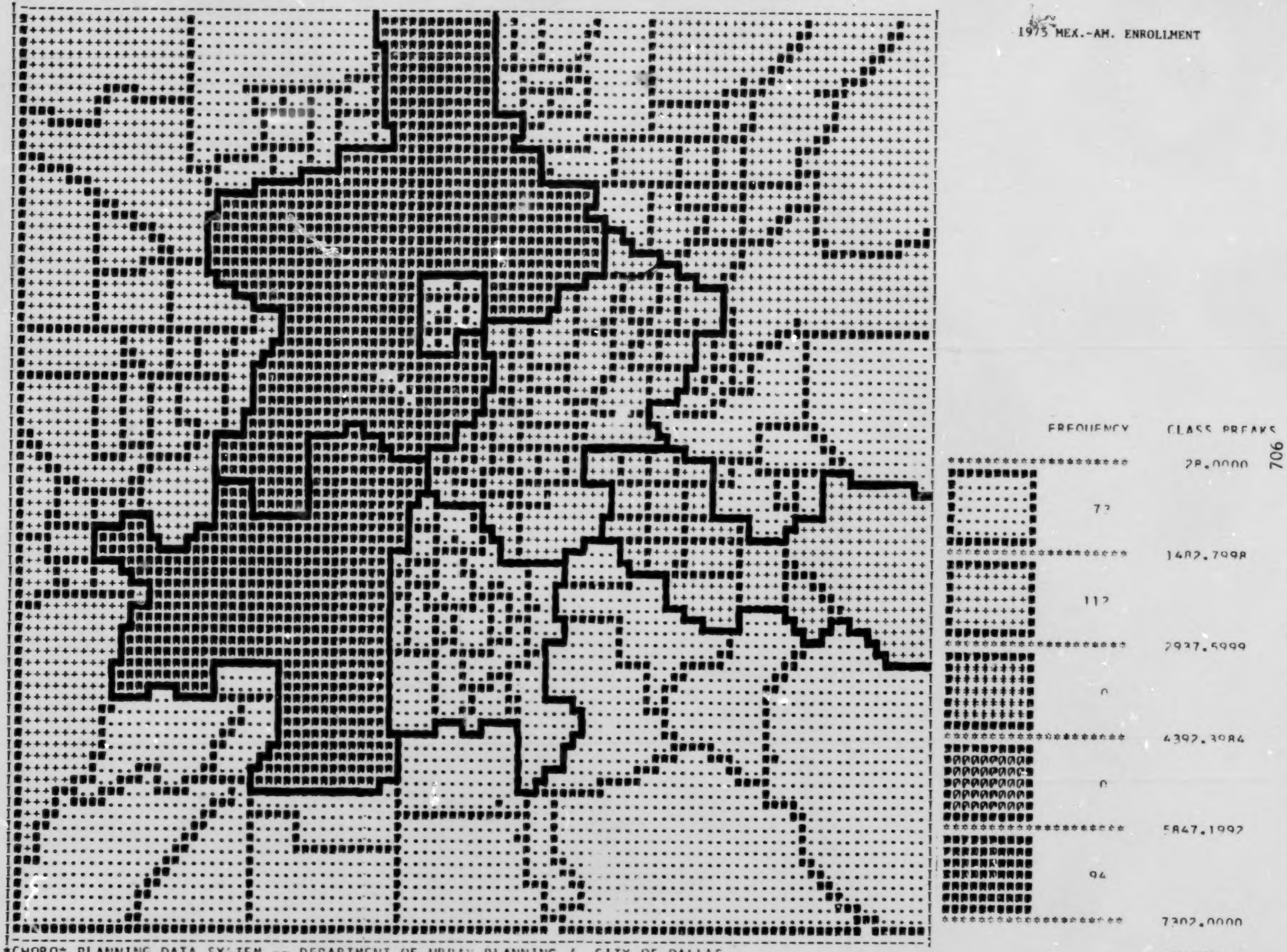
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1975 MEX.-AM. ENROLLMENT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CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

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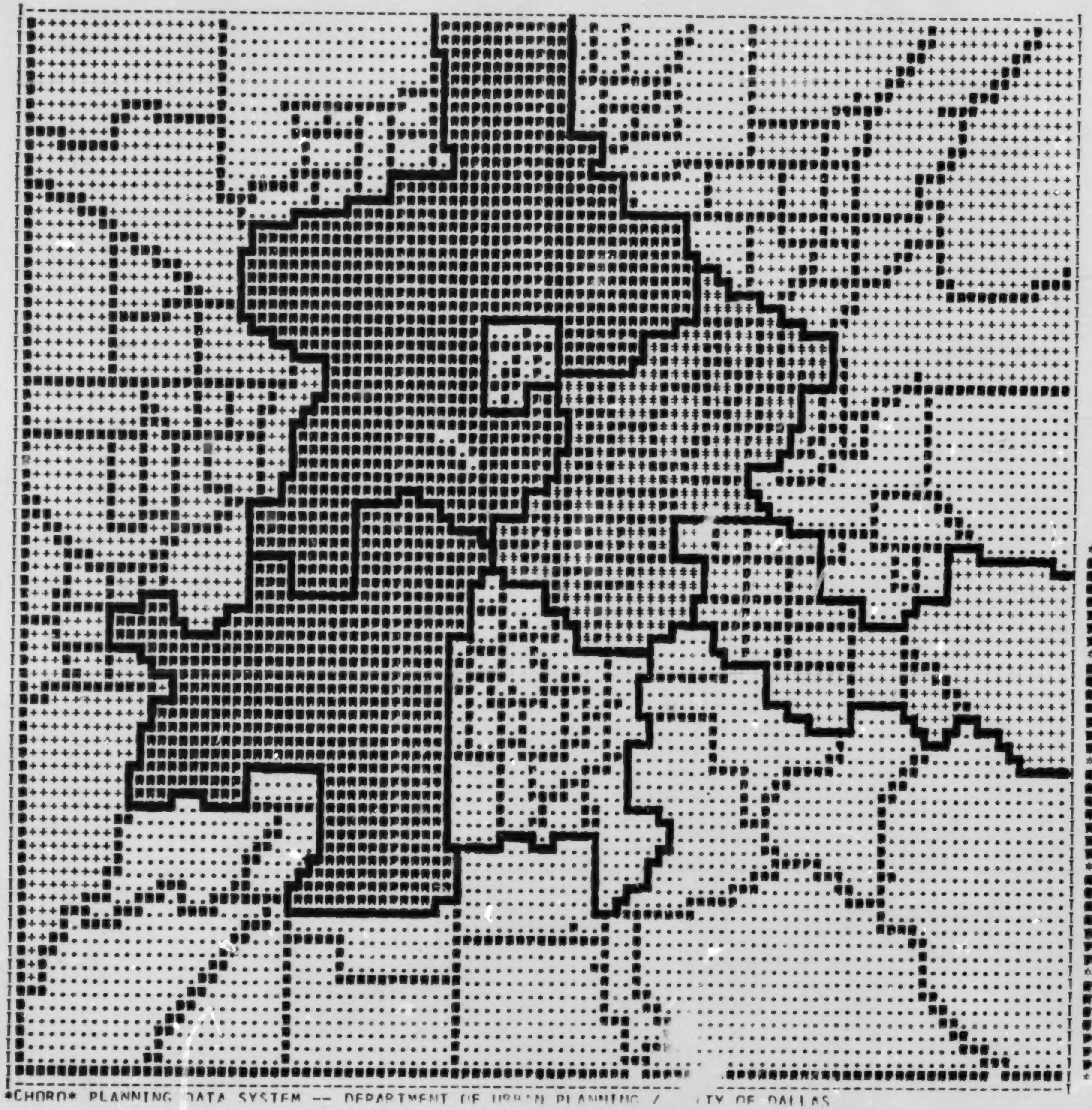

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+	62	
		2880.5999
‡	50	
		4310.3984
▨	0	
		5740.1992
■	94	
		7170.0000

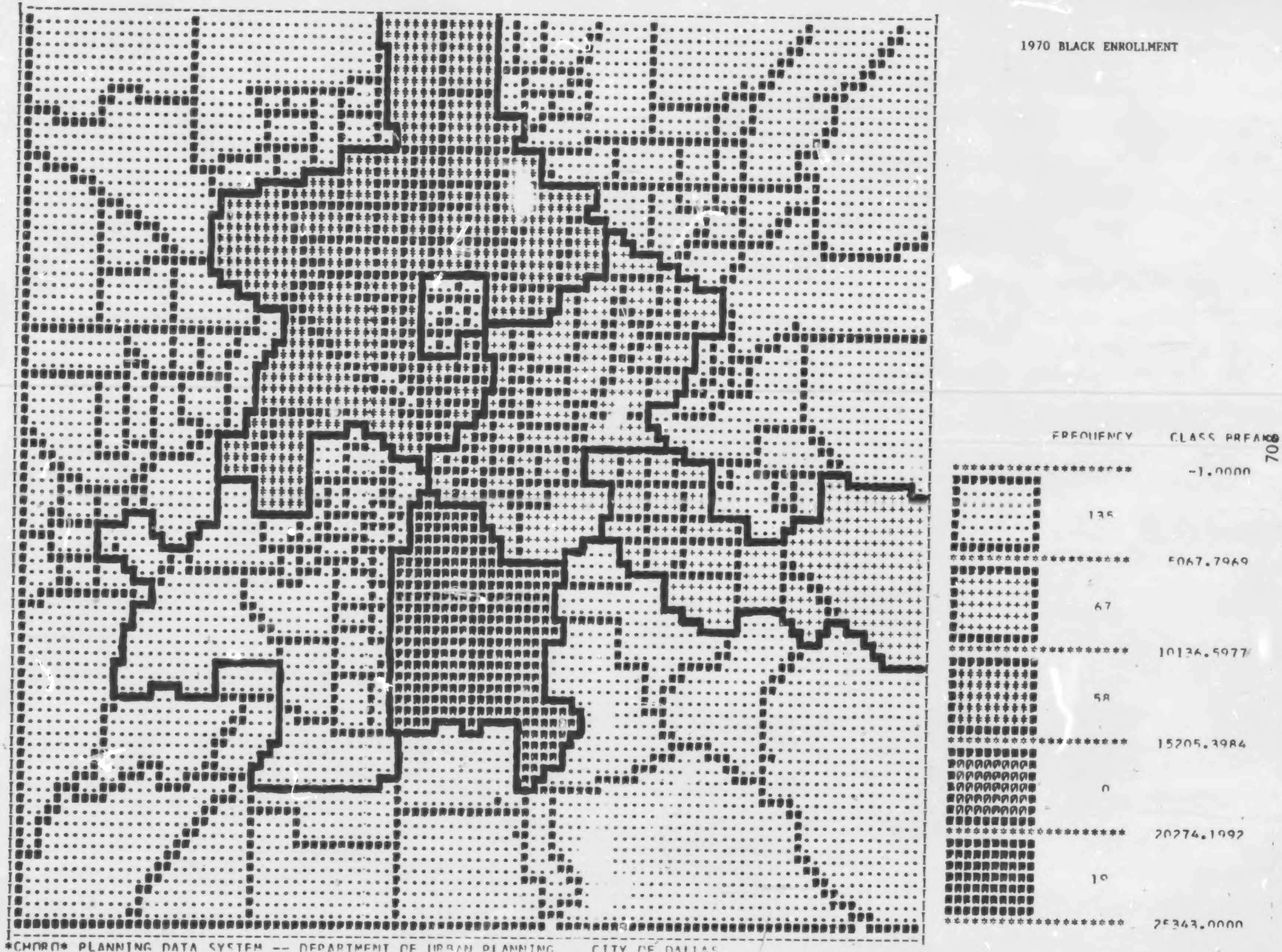
707

779

773

CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1970 BLACK ENROLLMENT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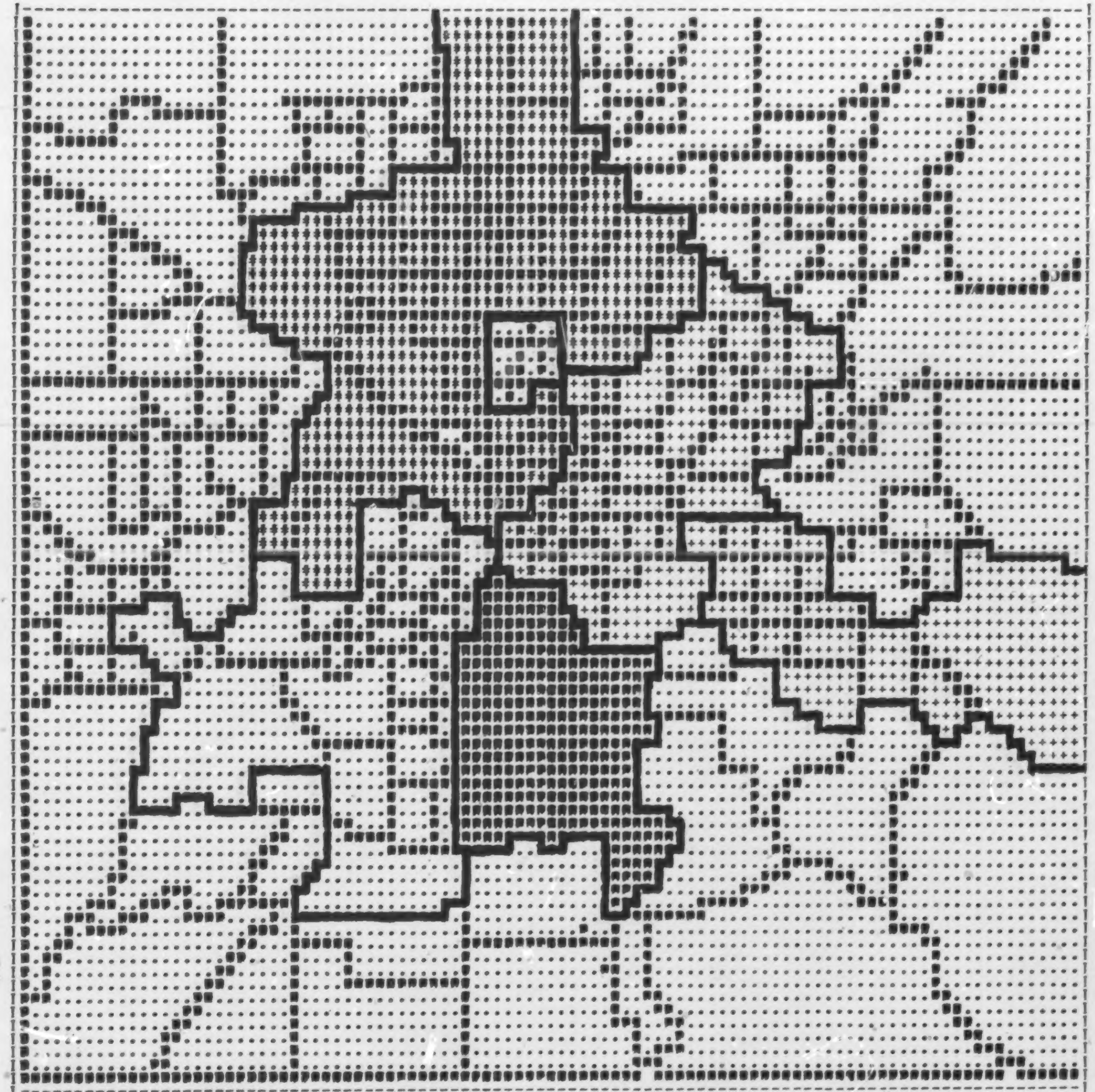
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING   CITY OF DALLAS



1971 BLACK ENROLLMENT

	FREQUENCY	CLASS BREAKS
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		5017.1992
+	67	
		10035.3984
‡	58	
		15053.5977
@	0	
		20071.7969
■	19	
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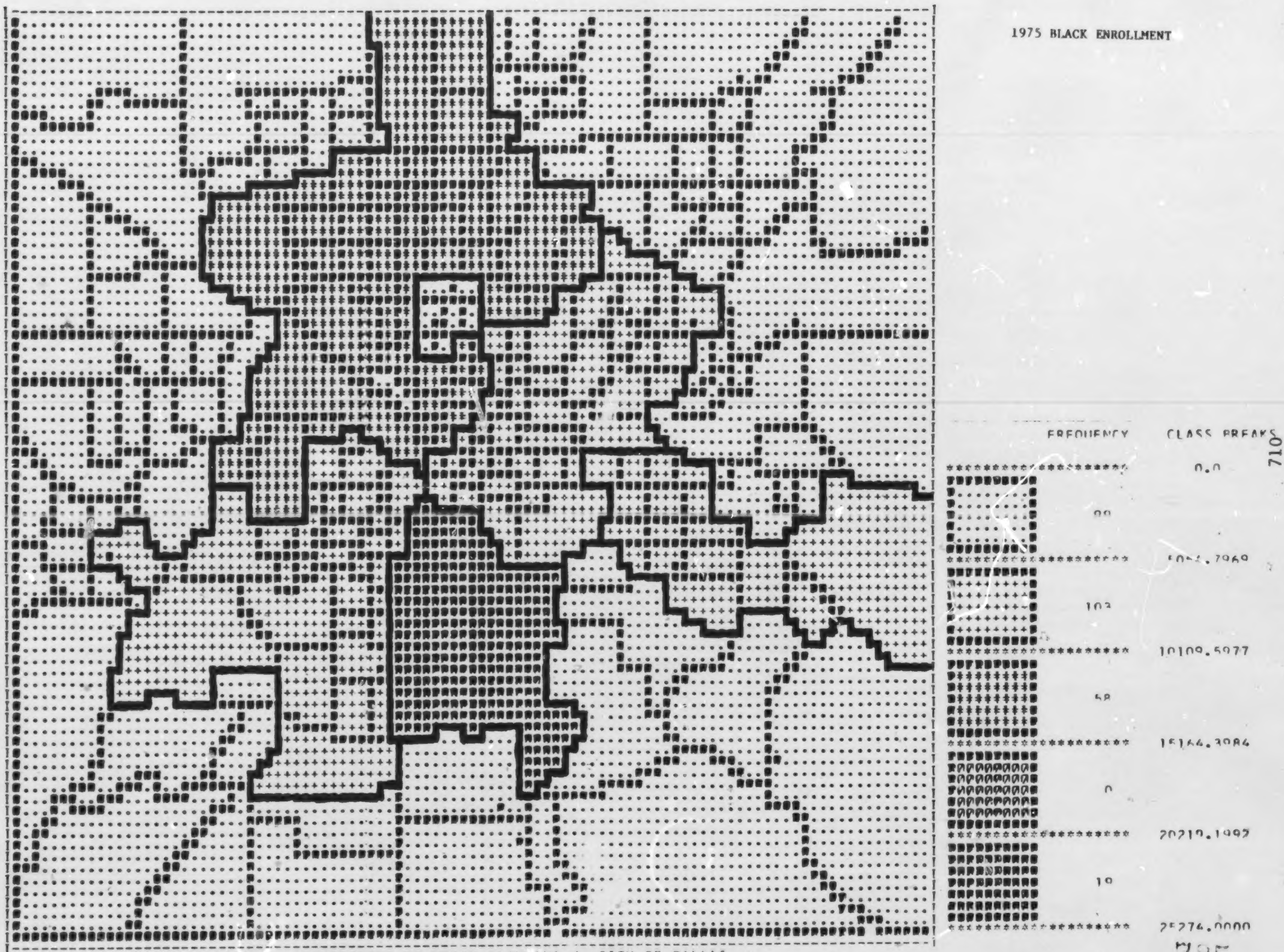
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1975 BLACK ENROLLMENT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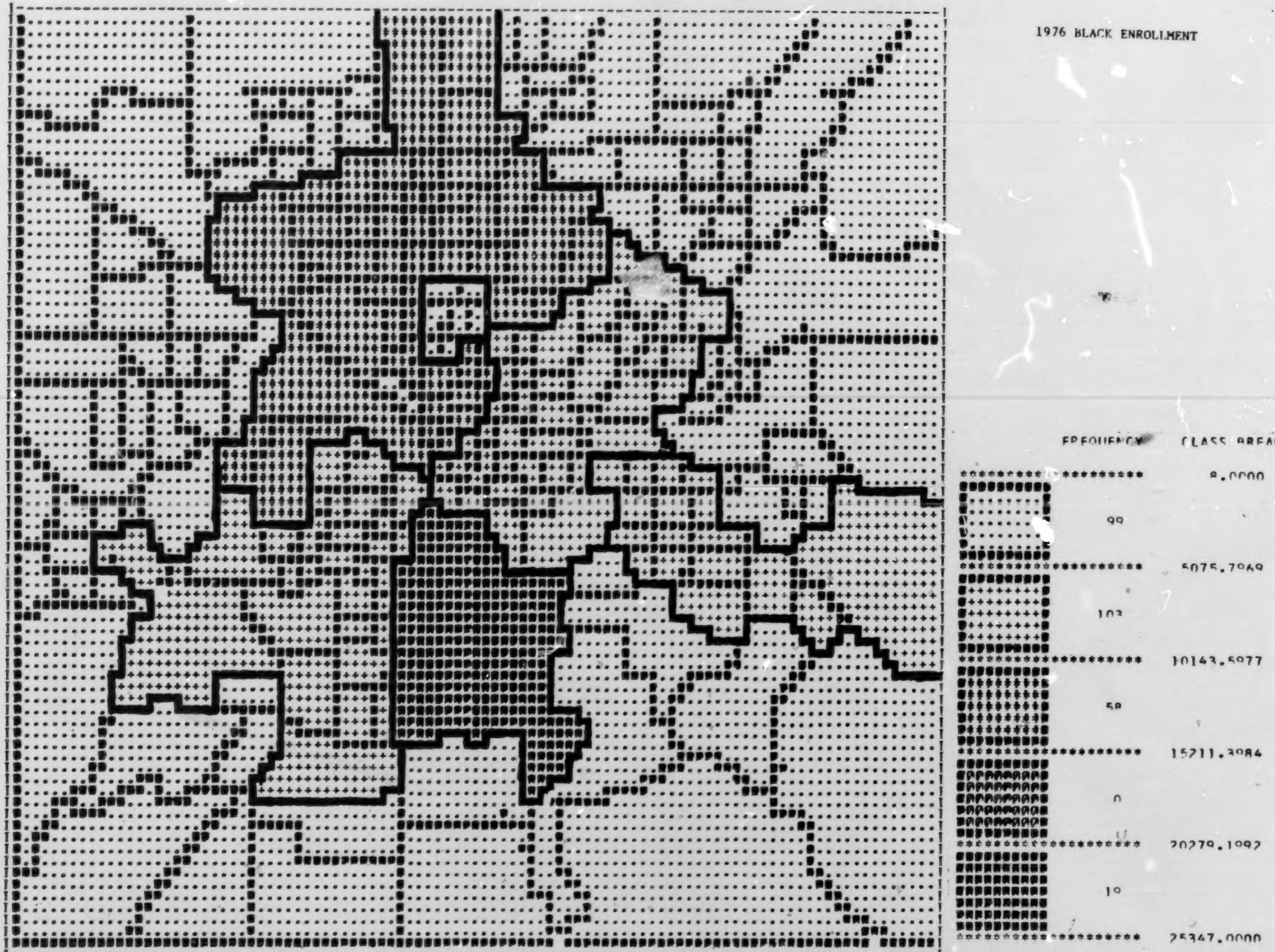
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1976 BLACK ENROLLMENT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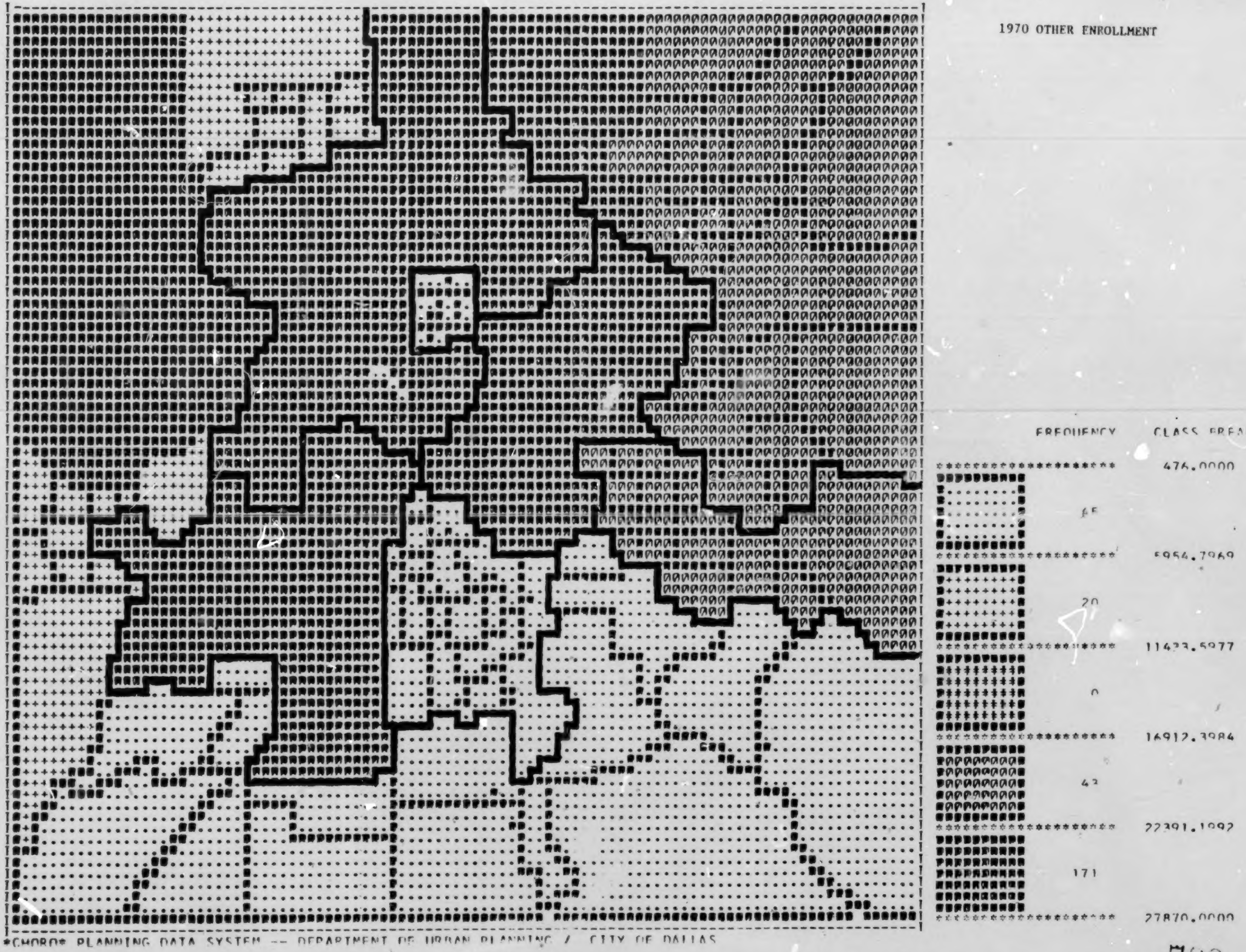
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1970 OTHER ENROLLMENT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CLASS BREAKS
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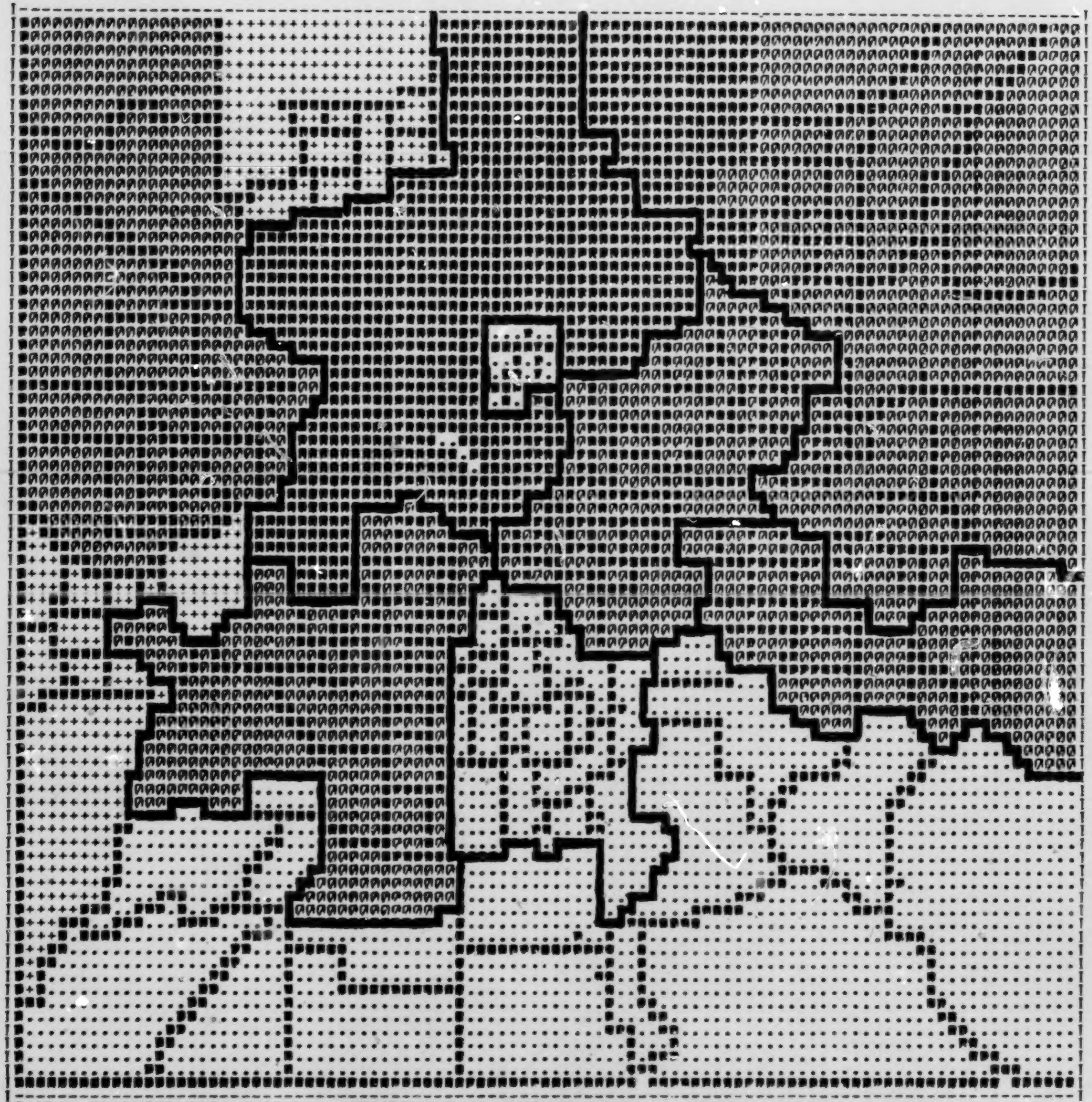
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

1971 OTHER ENROLLMENT



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	6031.5977
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	11724.1992
0	
	17416.7969
146	
	23109.3984
68	
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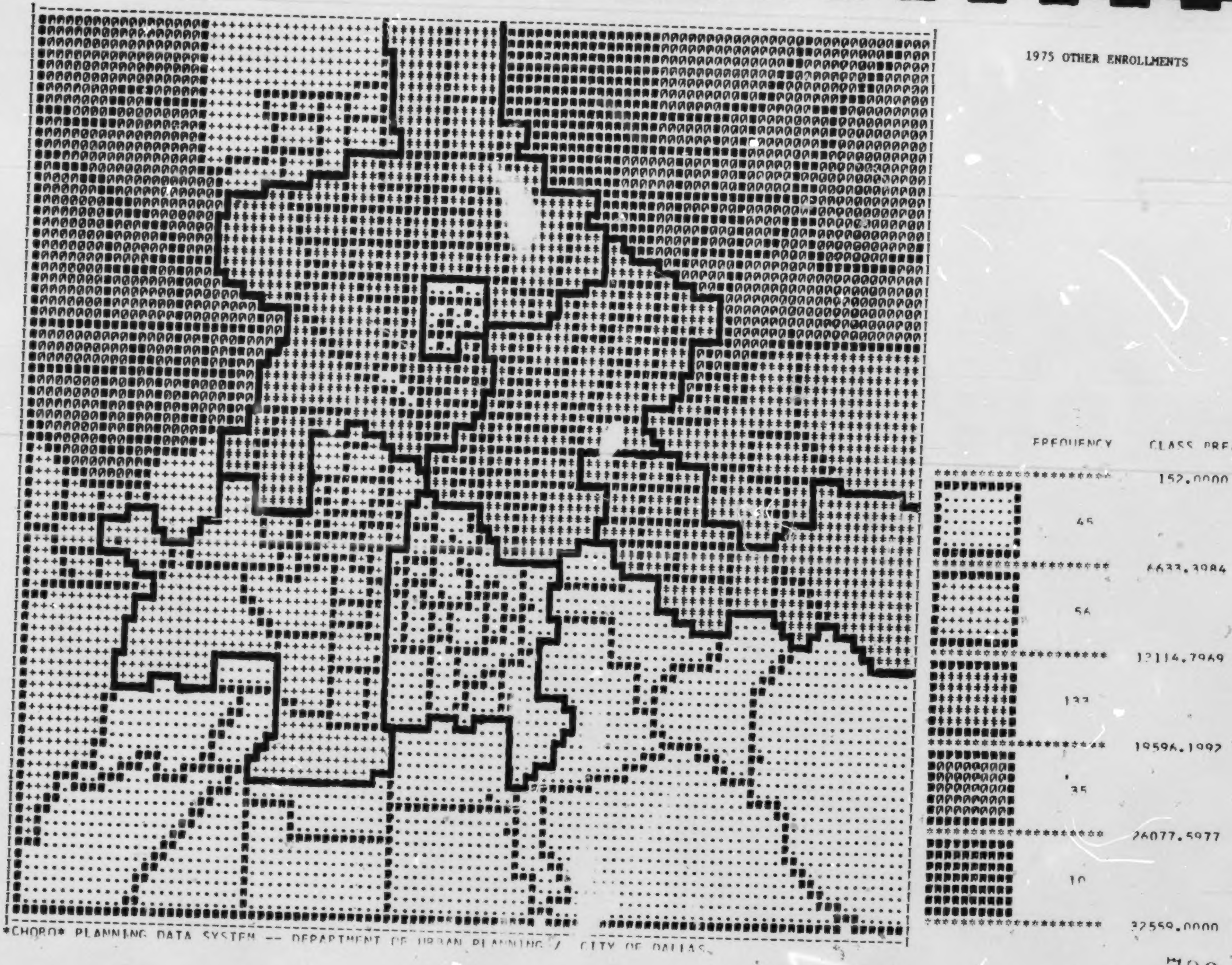
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

700

713

791

1975 OTHER ENROLLMENTS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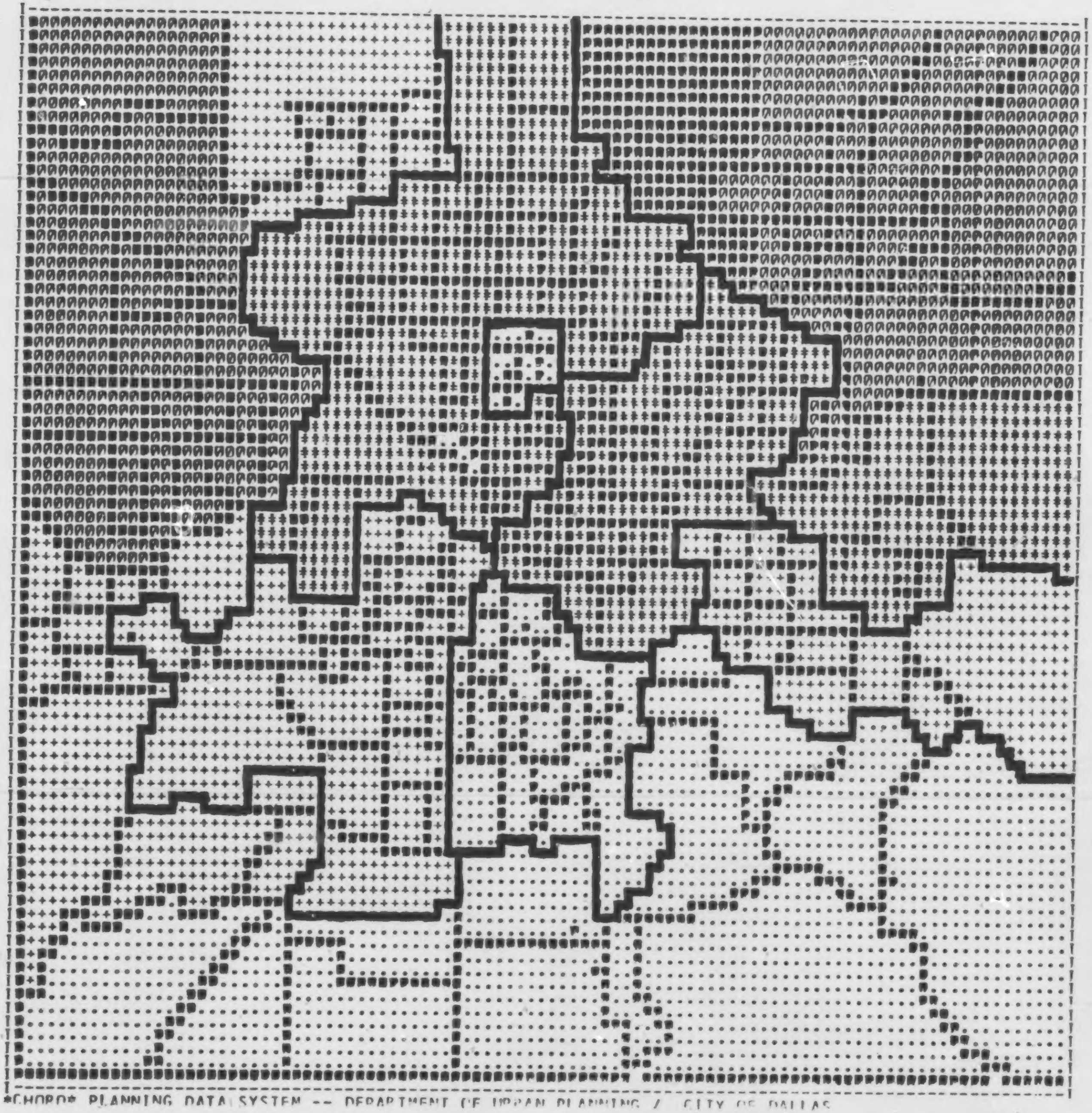
CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS.

1976 OTHER ENROLLMENT



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@	35	
		26765.7969
■	10	
		33403.0000

CHORO PLANNING DATA SYSTEM -- DEPARTMENT OF URBAN PLANNING / CITY OF DALLAS

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SUB-DISTRICT 1 ETHNICITY - BLACK

  GRADES    KG      1       2       3       4       5       6       7       8       9      10      11      12
YEARS
1968       110    1091    1074    1103     863     830     810    1086    1000     912     772     506     344

1969       115    1150    1140    1143    1164    1051    1081    1107    1007     938     729     617     485
           0.00    0.00    1.04    1.06    1.06    1.22    1.30    1.37    0.93    0.94    0.80    0.80    0.95

1970       350    1145    1036    1096    1075    1077    1070    1005    1047    1023     806     653     462
           0.00    0.00    0.90    0.96    0.94    0.93    1.02    0.93    0.95    1.02    0.86    0.90    0.75

1971       484    1124    1159    1093     969     952    1032    1029     970    1063     808     600     502
           0.00    0.00    1.01    1.06    0.88    0.89    0.96    0.96    0.97    1.02    0.79    0.74    0.77

1972       731    1020    1101    1169     952     947     986    1037     960    1050     795     663     536
           0.00    0.00    0.98    1.01    0.87    0.98    1.04    1.00    0.93    1.08    0.75    0.82    0.89

1973       857     948    1048    1063     991     886     962     964    1030     989     801     712     572
           0.00    0.00    1.03    0.97    0.85    0.93    1.02    0.98    0.99    1.03    0.76    0.90    0.86

1974       839     903     882     915     969     964     893     967     923    1078     750     662     558
           0.00    0.00    0.93    0.87    0.91    0.97    1.01    1.01    0.96    1.05    0.76    0.83    0.78

1975       826     869     885     948     901     712     990    1154     900    1062     872     637     540
           0.00    0.00    0.98    1.07    0.98    0.73    1.03    1.29    0.93    1.15    0.81    0.65    0.82

1976       830     833     793     764     772     796     850     881     798    1009     845     776     519
           0.00    0.00    0.91    0.86    0.81    0.88    1.19    0.89    0.69    1.12    0.80    0.89    0.81
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SUB-DISTRICT 1 ETHNICITY - MEX-AM

 GRADES     KG       1        2        3        4        5        6        7        8        9        10       11       12
YEARS
1968        9[illegible]     620      520      568      533      540      493      574      463      623      321      309      134


1969        69       724      648      582      607      554      618      623      575      432      464      300      271
             0.00     0.00     1.05     1.12     1.07     1.04     1.14     1.26     1.00     0.93     0.74     0.93     0.88

1970        127      688      671      622      546      573      621      600      580      517      389      338      243
             0.00     0.00     0.93     0.96     0.94     0.94     1.12     0.97     0.93     0.90     0.90     0.73     0.81

1971        155      678      629      689      632      542      652      651      549      620      364      204      158
             0.00     0.00     0.91     1.03     1.02     0.99     1.14     1.05     0.92     1.07     0.70     0.52     0.47

1972        308      614      643      609      611      576      621      641      539      579      374      309      176
             0.00     0.00     0.95     0.97     0.89     0.91     1.15     0.98     0.83     1.05     0.60     0.85     0.86

1973        513      666      601      713      583      617      626      583      589      489      404      270      239
             0.00     0.00     0.98     1.11     0.96     1.01     1.09     0.94     0.92     0.91     0.70     0.72     0.77

1974        579      723      660      583      667      570      662      586      611      657      413      324      214
             0.00     0.00     0.99     0.97     0.94     0.98     1.07     0.94     1.05     1.12     0.84     0.80     0.79

1975        629      695      694      640      587      658      579      669      600      546      428      324      254
             0.00     0.00     0.96     0.97     1.01     0.99     1.02     1.01     1.02     0.89     0.65     0.78     0.78

1976        639      656      638      610      602      559      591      558      588      533      409      283      236
             0.00     0.00     0.92     0.88     0.94     0.95     0.90     0.96     0.88     0.89     0.75     0.66     0.73
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SUB-DISTRICT 1 ETHNICITY - OTHER

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	33	2001	2185	2063	2210	2236	2254	2236	2295	2405	2301	2150	1913
1969	13	2003	2069	2193	2076	2240	2251	2212	2322	2417	2387	2164	2017
	0.00	0.00	1.03	1.00	1.01	1.01	1.01	0.98	1.04	1.05	0.99	0.94	0.94
1970	22	1939	2069	2006	2174	2096	2220	2173	2303	2353	2297	2197	2123
	0.00	0.00	1.03	0.97	0.99	1.01	0.99	0.97	1.04	1.01	0.95	0.92	0.98
1971	26	1408	1712	1828	1833	1957	1868	2044	2035	2181	2067	2149	2017
	0.00	0.00	0.88	0.88	0.91	0.90	0.89	0.92	0.94	0.95	0.88	0.94	0.92
1972	38	1339	1443	1622	1710	1709	1873	1729	1892	1962	1934	1935	1954
	0.00	0.00	1.02	0.95	0.94	0.93	0.96	0.93	0.93	0.96	0.89	0.94	0.91
1973	837	1100	1251	1301	1484	1552	1593	1669	1596	1855	1750	1870	1739
	0.00	0.00	0.93	0.90	0.92	0.91	0.93	0.89	0.92	0.98	0.89	0.97	0.90
1974	994	1100	1125	1179	1245	1377	1454	1462	1621	1585	1655	1662	1700
	0.00	0.00	1.02	0.94	0.96	0.93	0.94	0.92	0.97	0.99	0.89	0.95	0.91
1975	789	1016	1087	1031	1039	1136	1257	1368	1390	1590	1399	1554	1506
	0.00	0.00	0.99	0.92	0.88	0.91	0.91	0.94	0.95	0.98	0.88	0.94	0.91
1976	631	935	956	940	866	910	966	1080	1191	1378	1429	1316	1440
	0.00	0.00	0.94	0.86	0.84	0.88	0.85	0.86	0.87	0.99	0.90	0.94	0.93

SUB-DISTRICT 2 ETHNICITY - BLACK

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	998	1040	921	894	782	853	335	347	311	426	340	279
1969	24	1211	1139	1123	982	923	817	419	336	329	431	353	288
	0.00	0.00	1.14	1.08	1.07	1.03	1.04	0.49	1.00	0.95	1.39	0.83	0.85
1970	337	1083	1107	1052	1041	918	900	383	416	323	393	412	316
	0.00	0.00	0.91	0.92	0.93	0.93	0.98	0.47	0.99	0.96	1.19	0.96	0.90
1971	399	914	1004	1032	982	624	548	539	450	243	452	421	212
	0.00	0.00	0.93	0.93	0.93	0.60	0.60	0.60	1.17	0.58	1.40	1.07	0.51
1972	551	941	962	1026	978	626	578	474	470	265	472	355	299
	0.00	0.00	1.05	1.02	0.95	0.64	0.93	0.86	0.87	0.59	1.94	0.79	0.71
1973	745	867	860	790	1005	625	604	523	446	254	547	369	324
	0.00	0.00	0.91	0.82	0.98	0.64	0.96	0.90	0.94	0.54	2.06	0.78	0.91
1974	630	979	881	845	814	597	545	554	472	279	582	427	330
	0.00	0.00	1.02	0.98	1.03	0.59	0.87	0.92	0.90	0.63	2.29	0.78	0.89
1975	819	860	815	790	621	577	592	516	526	321	769	532	379
	0.00	0.00	0.83	0.90	0.73	0.71	0.99	0.95	0.95	0.68	2.76	0.91	0.89
1976	662	785	709	740	732	749	715	574	536	1176	1154	875	500
	0.00	0.00	0.82	0.91	0.93	1.21	1.24	0.97	1.04	2.24	3.60	1.14	0.94

SUB-DISTRICT 2 ETHNICITY - MEX-AM

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	180	132	149	137	126	122	109	86	75	51	32	31
1969	8 0.00	222 0.00	215 1.19	187 1.42	164 1.10	165 1.20	142 1.13	148 1.21	101 0.93	105 ****	44 ****	58 ****	35 ****
1970	14 0.00	212 0.00	228 1.03	220 1.02	186 1.[illegible]	190 1.16	184 1.12	139 0.98	107 0.72	77 0.76	71 0.68	50 ****	35 ****
1971	29 0.00	248 0.00	211 1.00	209 0.92	222 1.01	168 0.89	179 0.94	149 0.81	122 0.88	131 1.22	154 ****	221 ****	194 ****
1972	62 0.00	240 0.00	286 1.15	195 0.92	227 1.09	240 1.08	184 1.10	167 0.93	110 0.74	118 0.97	162 1.24	127 0.82	169 0.76
1973	211 0.00	210 0.00	264 1.10	229 0.80	207 1.06	230 1.01	220 0.92	170 0.92	129 0.77	137 1.25	165 1.40	117 0.72	109 0.86
1974	239 0.00	305 0.00	243 1.16	280 1.06	243 1.36	216 1.04	240 1.04	225 1.02	139 0.82	138 1.07	181 1.32	145 0.88	111 0.95
1975	225 0.00	298 0.00	272 0.89	225 0.93	248 0.89	246 1.01	223 1.03	232 0.97	169 0.75	165 1.19	209 1.51	139 0.77	129 0.89
1976	269 0.00	294 0.00	248 0.83	227 0.83	206 0.92	238 0.96	243 0.99	207 0.93	217 0.94	283 1.67	221 1.34	194 0.93	136 0.98

SUB-DISTRICT 2 ETHNICITY - OTHER

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	2116	2135	2104	2077	2128	2143	2151	1799	1910	1880	1634	1427
1969	13 0.00	2030 0.00	2092 0.99	2034 0.95	2063 0.98	2045 0.98	2075 0.98	1986 0.93	1842 0.86	1842 1.02	1807 0.95	1743 0.93	1501 0.92
1970	11 0.00	1804 0.00	1878 0.93	1972 0.94	1945 0.96	1987 0.96	1978 0.97	1914 0.92	1841 0.93	1806 0.98	2253 1.22	1923 1.06	1658 0.95
1971	3 0.00	1507 0.00	1581 0.88	1654 0.88	1766 0.90	1743 0.90	1837 0.92	1740 0.88	1611 0.84	1812 0.98	2331 1.29	2094 0.93	1875 0.98
1972	34 0.00	1272 0.00	1431 0.95	1468 0.93	1557 0.94	1609 0.91	1566 0.91	1634 0.89	1498 0.86	1613 1.00	2098 1.16	2122 0.91	1895 0.90
1973	921 0.00	1177 0.00	1178 0.93	1291 0.90	1364 0.93	1453 0.93	1530 0.95	1462 0.92	1341 0.82	1513 1.01	1954 1.21	1860 0.89	1894 0.89
1974	1007 0.00	1183 0.00	1107 0.94	1142 0.97	1260 0.98	1312 0.96	1367 0.95	1370 0.90	1297 0.89	1336 1.00	1829 1.21	1717 0.88	1707 0.92
1975	835 0.00	1142 0.00	1071 0.91	1007 0.91	1062 0.93	1135 0.90	1197 0.91	1238 0.89	1235 0.90	1316 1.01	1726 1.29	1683 0.92	1573 0.92
1976	809 0.00	1068 0.00	1061 0.93	1024 0.96	885 0.88	922 0.87	1035 0.91	1007 0.84	1108 0.89	1535 1.24	1650 1.25	1613 0.93	1463 0.87

SUB-DISTRICT 3 ETHNICITY - BLACK

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	665	567	558	541	477	512	193	5	5	478	372	335
1969	86 0.00	557 0.00	618 0.93	548 0.97	549 0.98	525 0.97	479 1.00	932 1.82	890 4.61	784 ****	451 ****	410 0.86	348 0.94
1970	149 0.00	606 0.00	601 1.08	596 0.96	609 1.11	540 0.98	538 1.02	962 2.01	889 0.95	757 0.85	544 0.69	416 0.92	386 0.94
1971	262 0.00	563 0.00	579 0.96	533 0.89	600 1.01	177 0.29	182 0.34	1150 2.14	1287 1.34	1842 2.07	650 0.86	594 1.09	563 1.35
1972	335 0.00	607 0.00	620 1.10	606 1.05	553 1.04	893 1.49	852 4.81	820 4.51	777 0.68	869 0.68	720 0.39	542 0.83	435 0.73
1973	500 0.00	643 0.00	630 1.04	635 1.02	647 1.07	859 1.55	887 0.99	835 0.98	815 0.99	1028 1.32	558 0.64	534 0.74	372 0.69
1974	555 0.00	635 0.00	594 0.92	611 0.97	607 0.96	890 1.38	835 0.97	877 0.99	849 1.02	1094 1.34	705 0.69	472 0.85	415 0.78
1975	512 0.00	642 0.00	607 0.96	600 1.01	614 1.00	832 1.37	867 0.97	870 1.04	869 0.99	1189 1.40	844 0.77	584 0.83	397 0.84
1976	534 0.00	621 0.00	639 1.00	612 1.01	594 0.99	597 0.97	561 0.[illegible]7	907 1.05	815 0.94	693 0.80	643 0.54	543 0.64	477 0.82

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SUB-DISTRICT 3 ETHNICITY - MEX-AM

  GRADES     KG       1        2        3        4        5        6        7        8        9        10       11       12
YEARS
1968          0       77       74       62       80       58       61       64       64       77       16       27       19

1969          0       70       81       79       78       142      156      82       60       52       55       31       30
            0.00     0.00     ****     ****     ****     ****     ****     ****     ****     ****     ****     ****     ****

1970          0       103      60       98       79       75       94       61       86       72       43       40       24
            0.00     0.00     ****     ****     ****     ****     0.66     0.52     ****     ****     ****     ****     ****

1971          0       120      127      119      147      113      112      124      110      105      69       55       33
            0.00     0.00     1.23     ****     ****     ****     ****     ****     ****     ****     ****     ****     ****

1972          1       144      125      140      129      153      127      140      158      109      98       63       46
            0.00     0.00     1.04     1.10     1.08     1.04     1.12     1.25     1.27     0.99     0.93     ****     ****

1973         123      146      130      125      143      131      158      133      138      130      75       76       56
            0.00     0.00     0.90     1.00     1.02     1.02     1.03     1.05     0.99     0.82     0.69     ****     ****

1974         124      160      146      124      132      165      140      177      147      137      99       62       51
            0.00     0.00     0.99     0.95     1.06     1.15     1.07     1.12     1.11     0.99     0.76     ****     ****

1975         126      151      156      147      128      149      142      158      177      146      92       86       41
            0.00     0.00     0.98     1.01     1.03     1.13     0.86     1.13     1.00     0.99     0.67     ****     ****

1976         137      132      146      149      144      135      126      182      150      162      114      90       59
            0.00     0.00     0.97     0.96     0.98     1.05     0.85     1.28     0.95     0.92     0.78     ****     ****
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SUB-DISTRICT 3 ETHNICITY - OTHER

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	1571	1503	1551	1469	1550	1537	1322	1693	1699	1523	1353	1060
1969	0	1430	1508	1489	1554	1867	2126	1842	1063	1040	1624	1444	1210
	0.00	0.00	0.96	0.99	1.00	1.27	1.37	1.20	0.80	0.61	0.96	0.95	0.89
1970	0	1347	1420	1479	1449	1528	1405	1647	1776	1721	1273	1269	1214
	0.00	0.00	0.99	0.98	0.97	0.98	0.75	0.77	0.96	1.62	1.22	0.78	0.84
1971	0	1205	1335	1369	1405	1368	1441	1478	1677	1640	1218	1068	1050
	0.00	0.00	0.99	0.96	0.95	0.94	0.94	1.05	1.02	0.92	0.71	0.84	0.83
1972	0	1107	1244	1295	1354	1385	1342	1419	1475	1573	1183	986	856
	0.00	0.00	1.03	0.97	0.99	0.99	0.98	0.98	1.00	0.94	0.72	0.81	0.80
1973	771	1017	957	995	1119	1133	1174	1201	1445	1292	1042	941	798
	0.00	0.00	0.86	0.80	0.86	0.84	0.85	0.89	1.02	0.88	0.66	0.80	0.81
1974	846	989	978	937	950	1014	1063	1206	1225	1358	866	872	739
	0.00	0.00	0.96	0.98	0.95	0.91	0.94	1.03	1.02	0.94	0.67	0.84	0.79
1975	771	953	864	907	850	884	996	1054	1209	1140	926	687	649
	0.00	0.00	0.87	0.93	0.91	0.93	0.98	0.99	1.00	0.93	0.68	0.79	0.74
1976	676	880	895	845	763	769	789	1059	1051	977	854	792	613
	0.00	0.00	0.94	0.98	0.84	0.90	0.89	1.07	1.00	0.81	0.75	0.86	0.89

SUB-DISTRICT 4 ETHNICITY - BLACK

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	23	122	66	86	85	82	76	1	46	64	11	3	3
1969	17	56	58	59	43	56	6	4	61	56	9	11	4
	0.00	0.00	0.48	****	****	****	****	****	****	****	****	****	****
1970	19	60	58	62	55	45	9	89	88	63	39	28	18
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1971	29	80	65	68	76	81	32	382	331	286	552	353	126
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1972	38	183	188	173	158	167	120	587	476	421	626	492	276
	0.00	0.00	****	****	****	****	****	****	1.25	1.27	2.19	0.89	0.78
1973	281	335	329	335	326	324	276	674	627	547	618	481	317
	0.00	0.00	1.80	1.78	1.88	2.05	1.65	5.62	1.07	1.15	1.47	0.77	0.64
1974	422	461	492	522	507	500	454	854	786	785	826	600	448
	0.00	0.00	1.47	1.59	1.51	1.53	1.40	3.09	1.17	1.25	1.51	0.97	0.93
1975	420	663	576	614	649	598	582	1029	998	909	1032	752	474
	0.00	0.00	1.25	1.25	1.24	1.18	1.16	2.27	1.17	1.16	1.31	0.91	0.79
1976	576	728	751	691	689	737	681	786	827	735	776	842	644
	0.00	0.00	1.13	1.20	1.12	1.14	1.14	1.35	0.80	0.74	0.85	0.82	0.86

SUB-DISTRICT 4 ETHNICITY - MEX-AM

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	23	453	388	387	325	347	326	205	159	160	137	125	101
1969	34	402	358	343	341	298	237	219	219	194	202	185	134
	0.00	0.00	0.79	0.88	0.88	0.92	0.68	0.67	1.07	1.22	1.26	1.35	1.07
1970	60	451	425	413	392	399	262	263	222	257	174	116	119
	0.00	0.00	1.06	1.15	1.14	1.17	0.88	1.11	1.01	1.17	0.90	0.57	0.64
1971	64	509	465	404	409	394	299	304	295	250	257	175	124
	0.00	0.00	1.03	0.95	0.99	1.01	0.75	1.16	1.12	1.13	1.00	1.01	1.07
1972	108	533	530	507	447	441	344	348	338	314	292	222	166
	0.00	0.00	1.04	1.09	1.11	1.08	0.87	1.16	1.11	1.06	1.17	0.86	0.95
1973	434	557	570	530	498	469	396	371	373	328	340	261	186
	0.00	0.00	1.07	1.00	0.98	1.05	0.90	1.08	1.07	0.97	1.08	0.89	0.84
1974	561	646	582	607	559	536	453	440	398	379	340	276	219
	0.00	0.00	1.04	1.06	1.05	1.08	0.97	1.11	1.07	1.02	1.04	0.81	0.84
1975	537	746	652	568	638	573	499	473	468	421	422	275	230
	0.00	0.00	1.01	0.98	1.05	1.03	0.93	1.04	1.06	1.06	1.11	0.81	0.83
1976	686	747	701	624	598	653	568	573	547	505	435	329	204
	0.00	0.00	0.94	0.96	1.05	1.02	0.99	1.15	1.16	1.08	1.03	0.78	0.74

SUB-DISTRICT 4 ETHNICITY - OTHER

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	9	2073	2122	2118	2108	2069	2105	2183	2128	2140	2144	1974	1650
1969	10	2184	2176	2136	2195	2156	2060	2153	2254	2062	2026	1954	1666
	0.00	0.00	1.05	1.01	1.04	1.02	1.00	1.02	1.03	0.97	0.95	0.91	0.84
1970	14	1965	2109	2060	2042	2076	2092	2078	2135	2208	1986	1956	1828
	0.00	0.00	0.97	0.95	0.96	0.95	0.97	1.01	0.99	0.98	0.96	0.97	0.94
1971	13	1545	1734	1839	1761	1776	1847	1892	1750	1905	1919	1676	1641
	0.00	0.00	0.88	0.87	0.85	0.87	0.89	0.90	0.84	0.89	0.87	0.84	0.84
1972	25	1279	1411	1519	1644	1584	1618	1649	1623	1626	1631	1587	1405
	0.00	0.00	0.91	0.88	0.89	0.90	0.91	0.89	0.86	0.93	0.86	0.83	0.84
1973	850	1090	1125	1222	1295	1394	1370	1370	1392	1915	1279	1268	1271
	0.00	0.00	0.88	0.87	0.85	0.85	0.86	0.85	0.84	1.19	0.79	0.78	0.80
1974	929	1015	971	1007	1042	1105	1239	1181	1242	1239	1137	1130	1056
	0.00	0.00	0.89	0.90	0.85	0.85	0.89	0.86	0.91	0.89	0.59	0.88	0.83
1975	751	1009	911	881	863	934	985	1076	1052	1082	1075	927	930
	0.00	0.00	0.90	0.91	0.86	0.90	0.89	0.87	0.89	0.87	0.87	0.82	0.82
1976	737	939	977	892	795	817	878	891	933	971	935	819	782
	0.00	0.00	0.97	0.98	0.90	0.95	0.94	0.90	0.87	0.92	0.86	0.76	0.84

```
SUB-DISTRICT 5 ETHNICITY - BLACK

  GRADES      KG       1        2        3        4        5        6        7        8        9       10       11       12
YEARS
1968            0    2535     2592     2623     2439     2372     2326     1697     1604     1472     1164      909      623


1969          114    2446     2491     2526     2399     2227     2144     2183     1875     1803     1438     1062      781
             0.00     0.00     0.98     0.97     0.91     0.91     0.90     0.94     0.99     1.12     0.98     0.91     0.86

1970          212    2428     2581     2663     2617     2532     2305     2173     2090     2000     1609     1309      824
             0.00     0.00     1.06     1.07     1.04     1.06     1.04     1.01     0.96     1.07     0.89     0.91     0.78

1971          369    2336     2586     2575     2609     2645     2483     2006     1906     1887     1448     1136     1022
             0.00     0.00     1.07     1.00     1.00     1.01     0.98     0.87     0.88     0.90     0.72     0.71     0.78

1972          790    2151     2468     2626     2672     2743     2599     2087     1954     1961     1679     1339      910
             0.00     0.00     1.06     1.02     1.04     1.03     0.98     0.84     0.97     1.03     0.89     0.92     0.80

1973         1791    1980     2224     2430     2455     2495     2593     2075     2084     1984     1610     1431      990
             0.00     0.00     1.03     0.98     0.93     0.93     0.95     0.80     1.00     1.02     0.82     0.85     0.74

1974         1837    2158     2136     2192     2419     2433     2512     2151     2116     2045     1601     1304     1213
             0.00     0.00     1.08     0.99     1.00     0.99     1.01     0.83     1.02     0.98     0.81     0.81     0.85

1975         1805    2101     2091     2102     2187     2373     2461     1973     2091     2046     1819     1312      913
             0.00     0.00     0.97     0.98     1.00     0.98     1.01     0.79     0.97     0.97     0.89     0.82     0.70

1976         1797    1981     2017     1967     1987     2079     2236     2350     2310     2124     2169     1398      932
             0.00     0.00     0.96     0.94     0.95     0.95     0.94     0.95     1.17     1.02     1.06     0.77     0.71
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SUB-DISTRICT 5 ETHNICITY - MEX-AM

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	116	110	107	105	117	96	41	83	63	27	27	27
1969	1 0.00	140 0.00	135 1.14	117 1.06	103 0.96	108 1.03	104 0.89	116 ****	86 ****	96 ****	18 ****	18 ****	14 ****
1970	1 0.00	104 0.00	113 0.61	98 0.73	93 0.54	90 0.67	99 0.92	93 0.89	59 0.51	50 ****	12 ****	11 ****	15 ****
1971	17 0.00	93 0.00	85 0.82	96 0.85	71 ****	64 ****	77 ****	74 ****	49 ****	54 ****	17 ****	9 ****	5 ****
1972	28 0.00	65 0.00	83 ****	59 ****	79 ****	52 ****	67 ****	46 ****	58 ****	44 ****	12 ****	18 ****	7 ****
1973	44 0.00	67 0.00	51 ****	70 ****	53 ****	64 ****	49 ****	44 ****	41 ****	39 ****	12 ****	6 ****	10 ****
1974	44 0.00	59 0.00	59 ****	54 ****	69 ****	49 ****	58 ****	32 ****	42 ****	29 ****	7 ****	7 ****	3 ****
1975	40 0.00	50 0.00	49 ****	42 ****	39 ****	54 ****	41 ****	39 ****	28 ****	30 ****	9 ****	5 ****	4 ****
1976	52 0.00	56 0.00	56 ****	47 ****	52 ****	45 ****	50 ****	35 ****	34 ****	13 ****	14 ****	4 ****	4 ****

SUB-DISTRICT 5 ETHNICITY - OTHER

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	0	171	172	162	161	173	152	178	116	117	39	26	138
1969	1	111	83	111	79	89	98	33	33	82	26	26	24
	0.00	0.00	0.49	0.65	0.49	0.55	0.57	0.22	0.19	0.71	0.22	****	****
1970	1	63	59	51	52	49	48	46	44	28	11	10	15
	0.00	0.00	0.53	****	0.47	****	****	****	****	****	****	****	****
1971	3	26	32	34	25	38	32	31	35	41	20	16	7
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1972	1	22	19	17	19	15	21	33	18	57	30	23	12
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1973	9	9	13	15	12	21	14	21	17	33	44	39	24
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1974	10	12	15	12	17	16	18	14	18	50	41	19	16
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1975	9	7	9	15	8	10	11	14	7	19	23	9	12
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****
1976	9	13	13	17	27	13	19	25	17	11	25	17	12
	0.00	0.00	****	****	****	****	****	****	****	****	****	****	****

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SUB-DISTRICT 6 ETHNICITY - BLACK

 GRADES    KG      1       2       3       4       5       6       7       8       9       10      11      12
YEARS
1968        0      42      40      37      38      38      26      28      31      33      19      17      20


1969        0      34      34      39      34      29      35      48      27      30      12      19      13
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1970        9      33      32      30      34      32      31      43      41      26      29      27      15
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1971       22      33      28      27      31      37      31      30      36      39      23      22      20
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1972       28      31      26      29      20      28      34      29      29      32      35      20      21
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1973       25      33      31      38      30      20      26      32      28      31      29      25      18
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1974       27      32      21      22      33      24      25      25      31      25      26      26      18
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1975       22      25      26      29      27      34      30      27      28      28      22      21      23
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****

1976       18      26      25      27      36      27      35      32      28      30      26      29      20
          0.00    0.00    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****    ****
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SUB-DISTRICT 6 ETHNICITY - MEX-AM

 GRADES      KG      1      2      3      4      5      6      7      8      9     10     11     12
YEARS
1968          0     15     12     15     11      8     11      8      8      7      9      3      3

1969          0     18     16      8     12     12      8     12      9      5      3      5      4
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1970          7     22     18     15     13     13     14      9     13      9      6      5      7
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1971          9     17     17     16     15     10     11     12      7     12      8      4      3
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1972          7     18     16     18     16     12     12     17     12      8      8      6      3
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1973          9     12     17     20     15     18     14     12     17     10      4      6      7
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1974         12     10     12     14     14     12     13     10      9      9      6      3      7
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1975          5     10     11      5     11     13     12      9      9      7      9      6      3
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
1976          9     15     11     13      4     10     14     14     10      8      7      9      6
           0.00   0.00   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****   ****
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SUB-DISTRICT 6 ETHNICITY - OTHER

  GRADES     KG       1       2       3       4       5       6       7       8       9      10      11      12
YEARS
1968          0     139     164     165     162     173     165     167     157     161     121     106      71


1969          0     142     156     177     168     165     177     166     166     135     163     143      84
           0.00    0.00    1.12    1.08    1.02    1.02    1.02    1.01    0.99    0.86    1.01    1.18    0.79

1970          9     149     151     151     153     160     151     167     172     173     150     130      93
           0.00    0.00    1.06    0.97    0.86    0.95    0.92    1.06    1.04    1.04    1.11    0.80    0.65

1971         15     156     175     163     144     169     164     167     164     166     155     128     104
           0.00    0.00    1.17    1.08    0.95    1.10    1.02    1.11    0.88    0.97    0.90    0.85    0.80

1972         23     127     156     176     152     161     172     172     173     173     152     127     111
           0.00    0.00    1.00    1.02    0.93    1.12    1.02    1.05    1.04    1.05    0.92    0.82    0.87

1973        106     135     141     160     163     153     155     164     177     161     155     136     115
           0.00    0.00    1.11    1.03    0.92    1.01    0.96    0.95    1.03    0.93    0.90    0.89    0.91

1974        132     140     141     145     153     167     150     156     164     177     150     127     121
           0.00    0.00    1.04    1.03    0.96    1.02    0.98    1.01    1.00    1.00    0.93    0.82    0.89

1975        135     143     155     139     140     155     161     147     147     155     148     119     109
           0.00    0.00    1.11    0.99    0.97    1.01    0.96    0.98    0.94    0.95    0.84    0.79    0.86

1976        144     163     151     152     143     147     162     165     146     148     149     125      99
           0.00    0.00    1.06    0.98    1.03    1.05    1.05    1.02    0.99    1.01    0.96    0.84    0.83
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SUB-DISTRICT 7 ETHNICITY - BLACK

GRADES YEARS	KG	1	2	3	4	5	6	7	8	9	10	11	12
1968	133	5453	5399	5328	4853	4581	4603	3540	3033	2797	2870	2149	1604
1969	356	5454	5480	5438	5176	4811	4562	4693	4196	3940	3070	2472	1919
	0.00	0.00	1.00	1.01	0.97	0.99	1.00	1.02	1.19	1.30	1.10	0.86	0.89
1970	1076	5355	5415	5499	5431	5144	4853	4655	4571	4192	3420	2845	2021
	0.00	0.00	0.99	1.00	1.00	0.99	1.01	1.02	0.97	1.00	0.87	0.93	0.82
1971	1585	5050	5421	5328	5327	4516	4308	5136	4982	5360	3933	3126	2445
	0.00	0.00	1.01	0.98	0.97	0.8[illegible]	0.84	1.06	1.07	1.17	0.94	0.91	0.86
1972	2473	4933	5367	5629	5333	5404	5169	5034	4666	4598	4327	3411	2477
	0.00	0.00	1.06	1.04	1.00	1.01	1.14	1.17	0.91	0.92	0.81	0.87	0.79
1973	4199	4806	5122	5291	5454	5211	5348	5103	5030	4833	4163	3552	2593
	0.00	0.00	1.04	0.99	0.97	0.98	0.99	0.99	1.00	1.04	0.91	0.82	0.76
1974	4310	5168	5006	5107	5349	5408	5264	5428	5177	5306	4490	3491	2982
	0.00	0.00	1.04	1.00	1.01	0.99	1.01	1.01	1.01	1.05	0.93	0.84	0.84
1975	4404	5160	5000	5083	4998	5126	5522	5569	5412	5555	5358	3838	2726
	0.00	0.00	0.97	1.02	0.98	0.96	1.02	1.06	1.00	1.07	1.01	0.85	0.78
1976	4417	4974	4934	4801	4810	4985	5078	[illegible]530	5314	5767	5613	4463	3092
	0.00	0.00	0.96	0.96	0.95	1.00	0.99	1.00	0.95	1.07	1.01	0.83	0.81

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SUB-DISTRICT 7 ETHNICITY - MEX-AM

 GRADES     KG       1        2        3        4        5        6        7        8        9        10       11       12
YEARS
1968        113     1463     1236     1288     1191     1196     1109     1041      863     1005      561      523      315


1969        112     1576     1453     1316     1305     1279     1265     1200     1050      884      786      597      488
             0.00     0.00     0.99     1.06     1.01     1.07     1.06     1.08     1.01     1.02     0.78     1.06     0.93

1970        209     1580     1535     1466     1316     1340     1274     1185     1067      982      695      560      443
             0.00     0.00     0.97     1.01     1.00     1.03     1.00     0.94     0.89     0.94     0.79     0.71     0.74

1971        274     1665     1534     1533     1496     1311     1330     1314     1132     1172      869      666      517
             0.00     0.00     0.97     1.00     1.02     1.00     0.99     1.03     0.96     1.10     0.88     0.96     0.92

1972        514     1614     1685     1528     1509     1474     1355     1359     1215     1172      946      745      567
             0.00     0.00     1.01     1.00     0.98     0.99     1.03     1.02     0.92     1.04     0.81     0.86     0.85

1973       1334     1660     1633     1687     1499     1529     1463     1313     1287     1133     1000      736      607
             0.00     0.00     1.01     1.00     0.98     1.01     0.99     0.97     0.95     0.93     0.85     0.78     0.81

1974       1559     1903     1702     1662     1684     1548     1566     1470     1346     1349     1046      817      605
             0.00     0.00     1.03     1.02     1.00     1.03     1.02     1.00     1.03     1.05     0.92     0.82     0.82

1975       1562     1950     1834     1627     1651     1693     1496     1580     1451     1315     1169      835      661
             0.00     0.00     0.96     0.96     0.99     1.01     0.97     1.01     0.99     0.98     0.87     0.80     0.81

1976       1792     1900     1800     1670     1606     1640     1592     1569     1546     1504     1200      909      645
             0.00     0.00     0.92     0.91     0.99     0.99     0.94     1.05     0.98     1.04     0.91     0.78     0.77
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Additional Information:

LP77-091-9-5 Enrollment Trends 1968-1976, 1977, Kevin von Noppen.

76-837 Eight-year Enrollment Trends, 1968-69 through 1975-76, 1976, Rande H. Smedley, James A. Meier, 132 pages.

76-847 Enrollment Projections 1976-82, 1976, James A. Meier, Rande H. Smedley, 36 pages.

75-553 Enrollment Projections 1975-1981, 1975, James A. Meier, 37 pages.

75-552 Seven Year Enrollment Trends, 1975, James A. Meier, 35 pages.

74-248 Six-Year Enrollment Trends, 1974, Clinton I. Schuhmacher, 46 pages.

73-192 Five-Year Enrollment Trends, 1973, Clinton I. Schuhmacher, 41 pages.

Abstract

Enrollment Projections 1977-81

Analyst: Kevin van Noppen

Purpose of the Evaluation: This study is intended to generate enrollment projections for the District by grade, ethnic composition, and subdistrict for the next five years. Urban factors bearing on enrollment are analyzed to provide a context for interpreting enrollment trends.

Design: Estimates of future District enrollment are based on projected City of Dallas, District, and eligible student population. Dallas population is projected by averaging a single log regression and an origin differences (concave) regression. The percent of Dallas population within the District is obtained using a single log regression. District population is formed by averaging an origin differences regression with the product of the Dallas population and percent of Dallas population within the District projections. Eligible student population is estimated by averaging a multiple log regression using Dallas and District populations with an origin differences regression. Enrollment is determined by averaging a multiple log regression of District and student eligible populations with an origin differences regression. Since the 1976* enrollment observation is lower than the previous trend would have indicated, its deviation is smoothed over the projections for the next five years.

Ethnic composition is calculated by regressing the fraction of each ethnicity with respect to time to yield future percentage changes. Results are normalized to total 100%.

Subdistrict enrollment for the next five years is projected using trend extrapolation. Data for the past five years is fit to a single log regression line to forecast future subdistrict enrollment.

Subdistrict enrollment by grade is calculated as a constant percentage of subdistrict enrollment. Enrollment history invalidated the technique of cohort survival and indicated that all grades will tend to retain their proportion of the 1976 enrollment throughout the forecast period.

Subdistrict enrollment by grade is summed to produce District enrollment by grade.

Question 1: What are the projected total District and subdistrict enrollments for the next five years?

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*Beginning of the school year is used to denote academic year; e.g., 1976 represents the 1976-77 academic year.

Question 2: What are the projected District and subdistrict enrollments by grade level for the next five school years?

Question 3: What is the projected ethnic composition of the District for the next five school years?

Results: The population of the City of Dallas increased by approximately three quarters of one percent per year from 1970 when its population was 844,401 to 1976 when its population was 881,400 as shown in Graph 1 and Appendix A. The projected City population increases by decreasing increments approaching one-half of one percent per year through 1981.

The percentage of city population within the District has decreased by nearly one-half of one percent per year from a 1970 proportion of 93.22 percent to a 1976 proportion of 90.21 percent. The projected percentage of city population within the District is expected to decrease at approximately the same rate through 1981. The actual data points can be found in Appendix A.

District population has decreased since its peak in 1971 at a rate approaching two-tenths of one percent per year. There is strong evidence to suggest that the projected District population will continue to decrease at this rate through 1981. The relationship between City population and District population can be examined in Graph 1. Appendix A gives the values of District population for the forecast period.

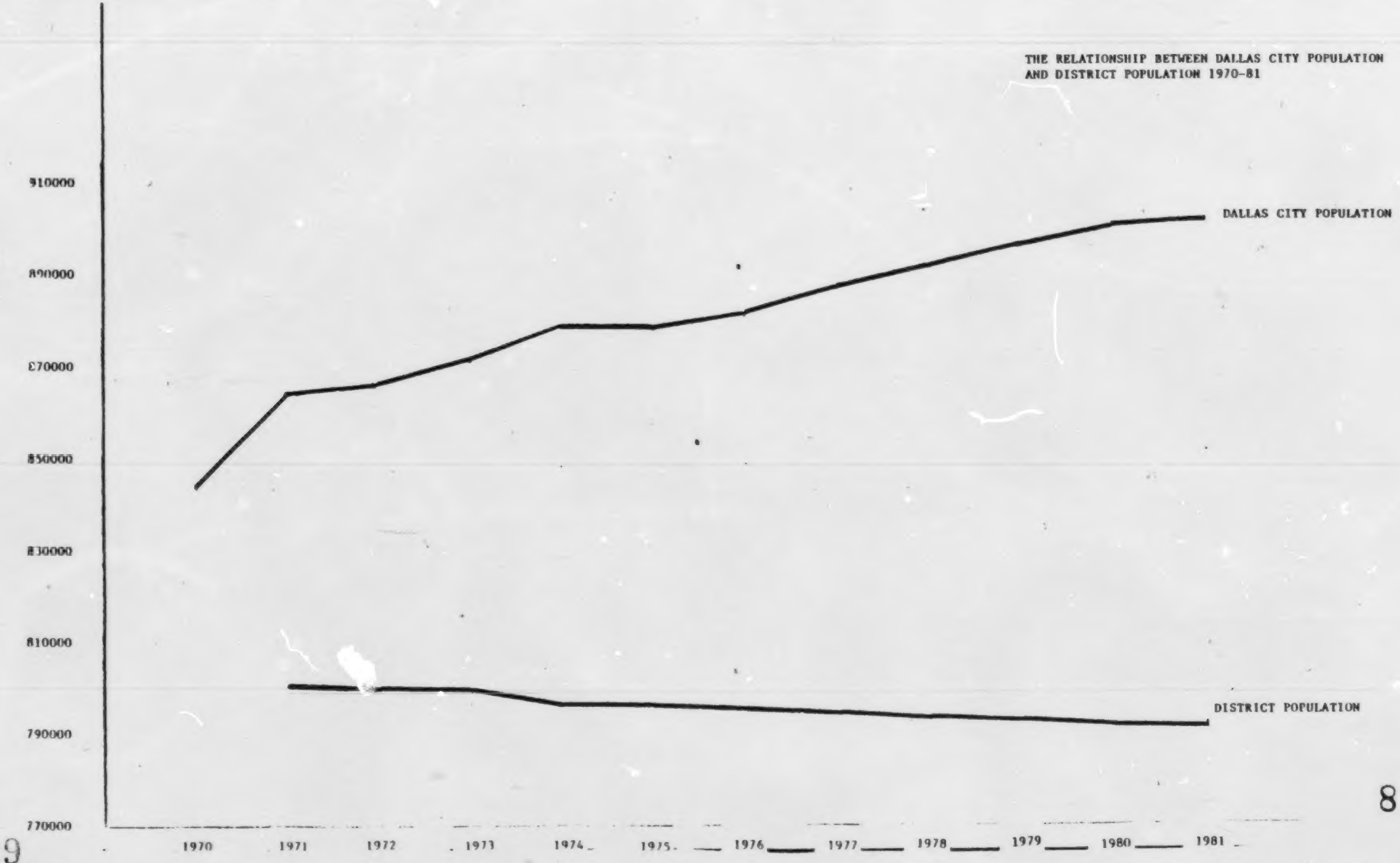
The school eligible cohort of population after a 1971 peak year has decreased by nearly two percent per year as indicated in Appendix A. The projected cohort is expected to follow the same trend through 1981. The post-school age cohort of population is currently increasing, indicating a general maturing of the urban community.

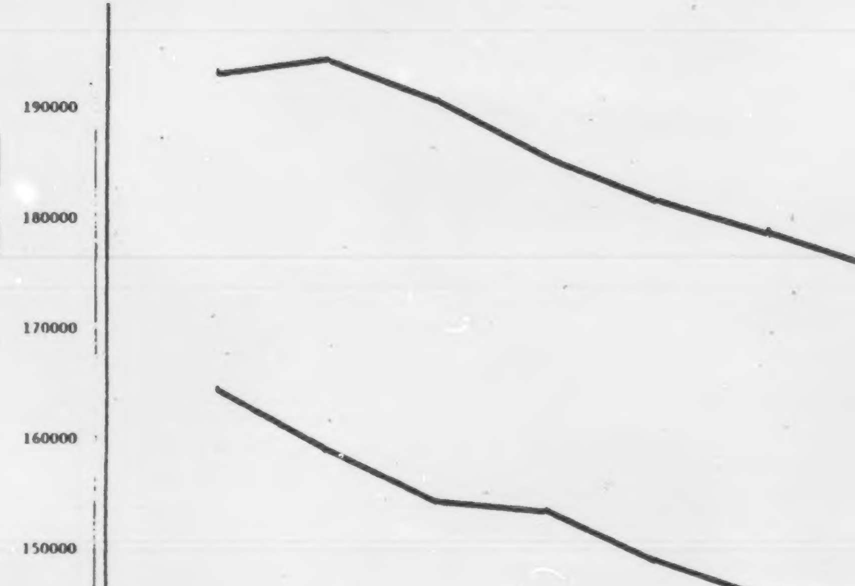
An investigation of the relationship between enrollment and the school eligible cohort indicates that enrollment has been consistently eighty percent, plus or minus two percent, of the school eligible cohort and is projected to remain in those proportions through 1981. This relationship can be viewed in Graph 2.

Due to the decreasing school eligible cohort, enrollment has decreased since 1970 at a rate somewhat over two percent per year. Trend extrapolation indicates a decrease in enrollment of close to two percent per year through 1981. The District enrollment projections can be examined in Appendix A.

An analysis of the various ethnic trends within the District enrollment indicates that all ethnic categories except Anglo are increasing. Black enrollment is increasing at a decreasing rate and is expected to level off shortly after 1981. Spanish enrollment is increasing at a decreasing rate and may level off during the 1980s. Other enrollment (Indian and Oriental) is increasing, but gives little indication of leveling soon. Anglo enrollment is currently decreasing at a slowing rate. The history of Anglo enrollment indicates a continuing decreasing trend which should level off subsequent to the leveling of Black and Spanish enrollment. Graph 3 highlights the relationships of the respective ethnic trends. Appendix B gives the respective ethnic compositions through the forecast period.

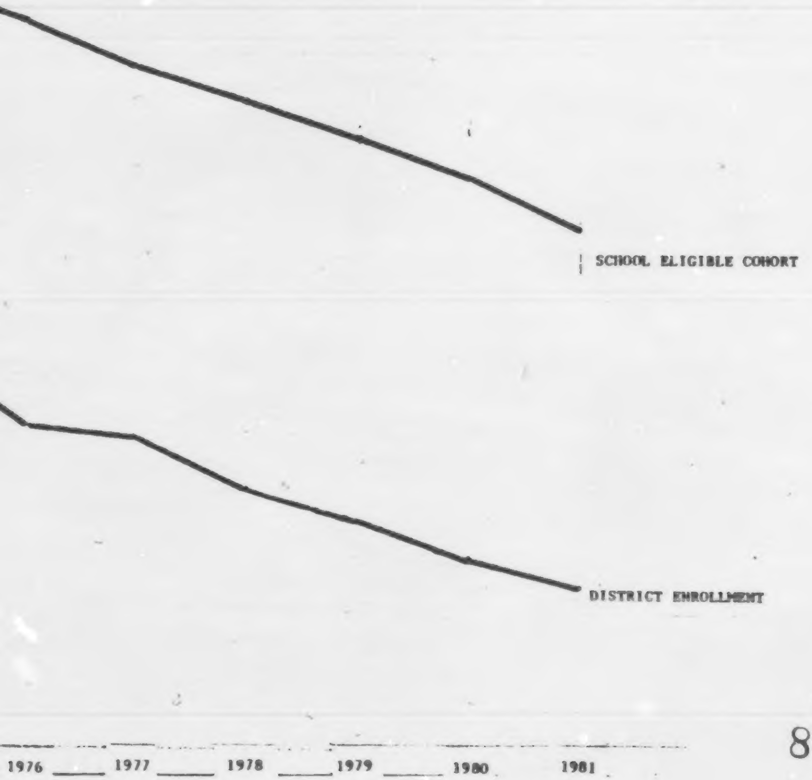
GRAPH #1

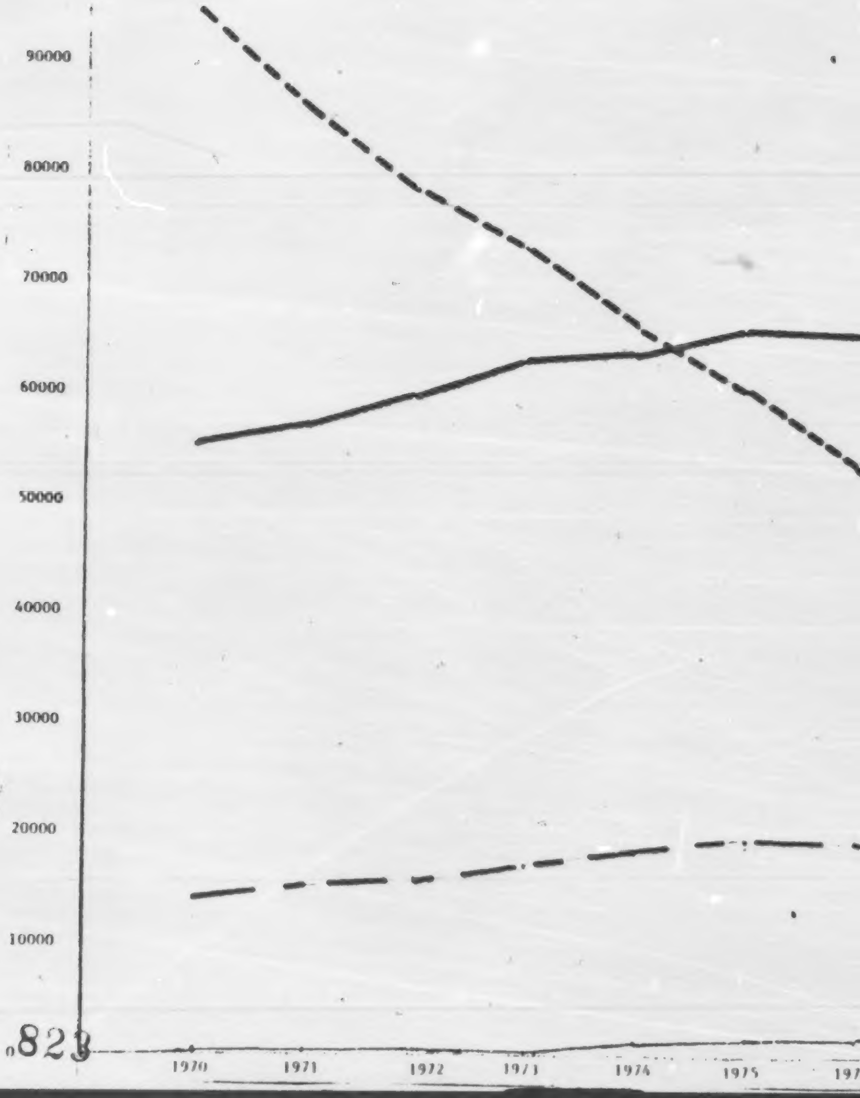

THE RELATIONSHIP BETWEEN DALLAS CITY POPULATION AND DISTRICT POPULATION 1970-81


190000
180000
170000
160000
150000
140000
130000
120000
1970
1971
1972
1973
1974
1975

GRAPH #2

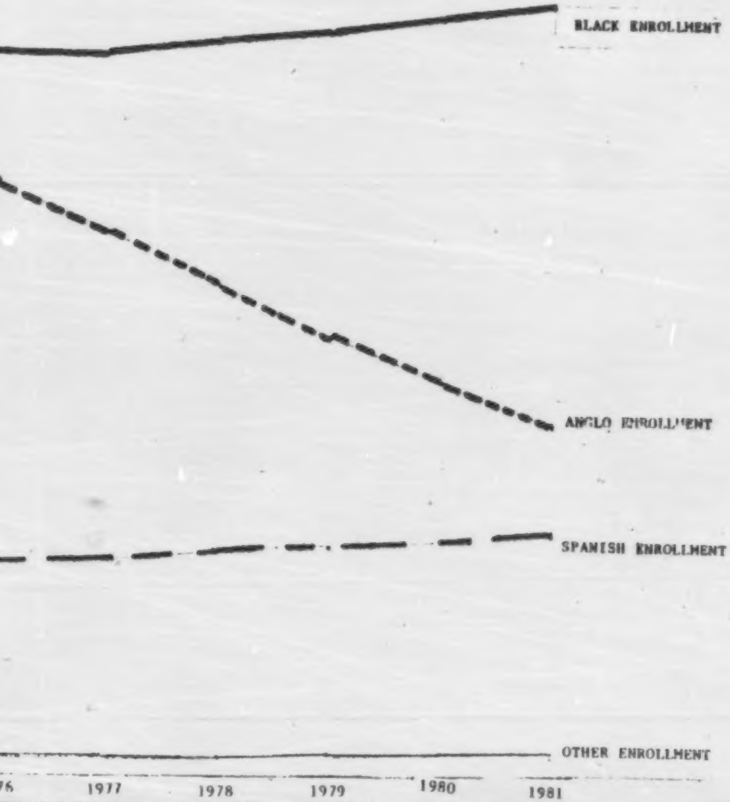
THE RELATIONSHIP BETWEEN THE SCHOOL ELIGIBLE COHORT
AND DISTRICT ENROLLMENT FOR THE PERIOD 1970-81

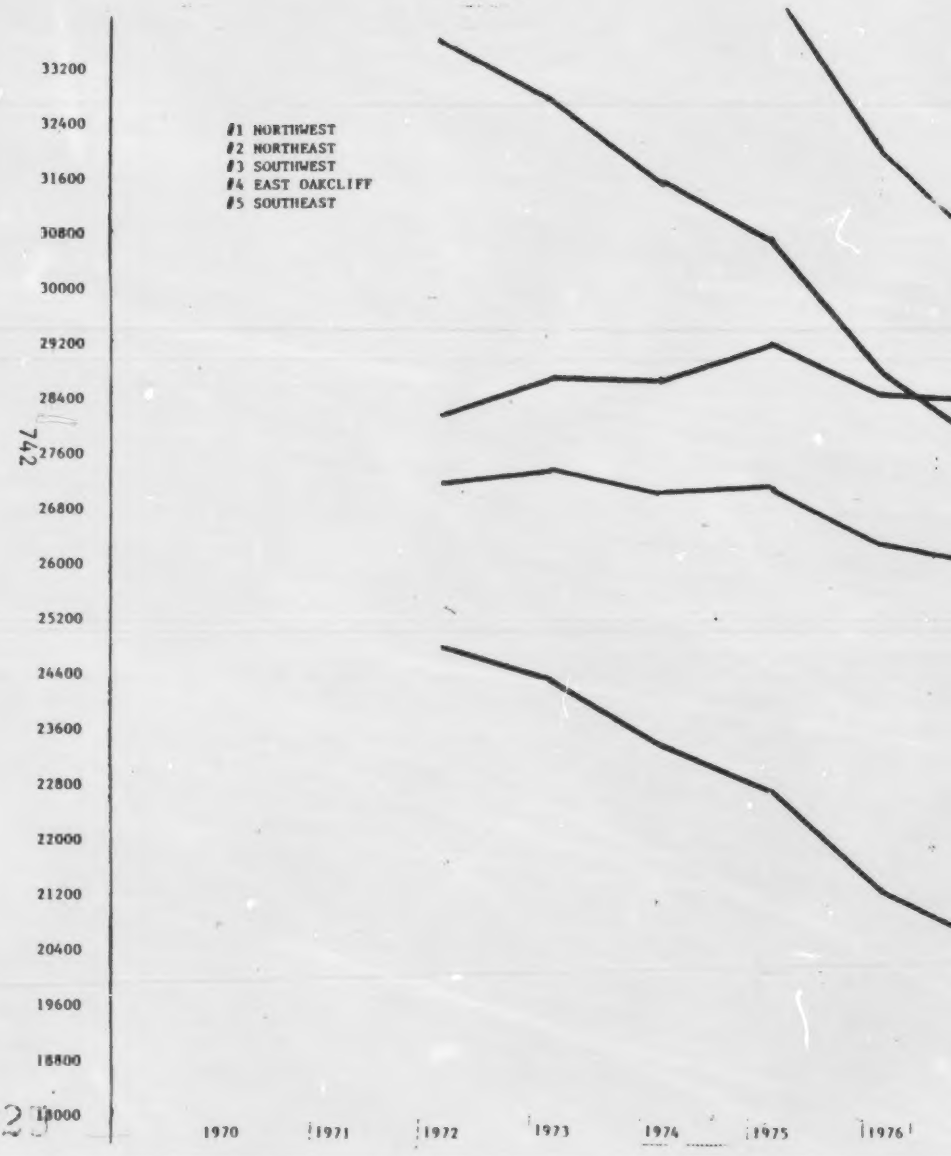



90000
80000
70000
60000
50000
40000
30000
20000
10000
0
1970
1971
1972
1973
1974
1975
197

GRAPH #3

DISTRICT ETHNIC COMPOSITION 1970-81

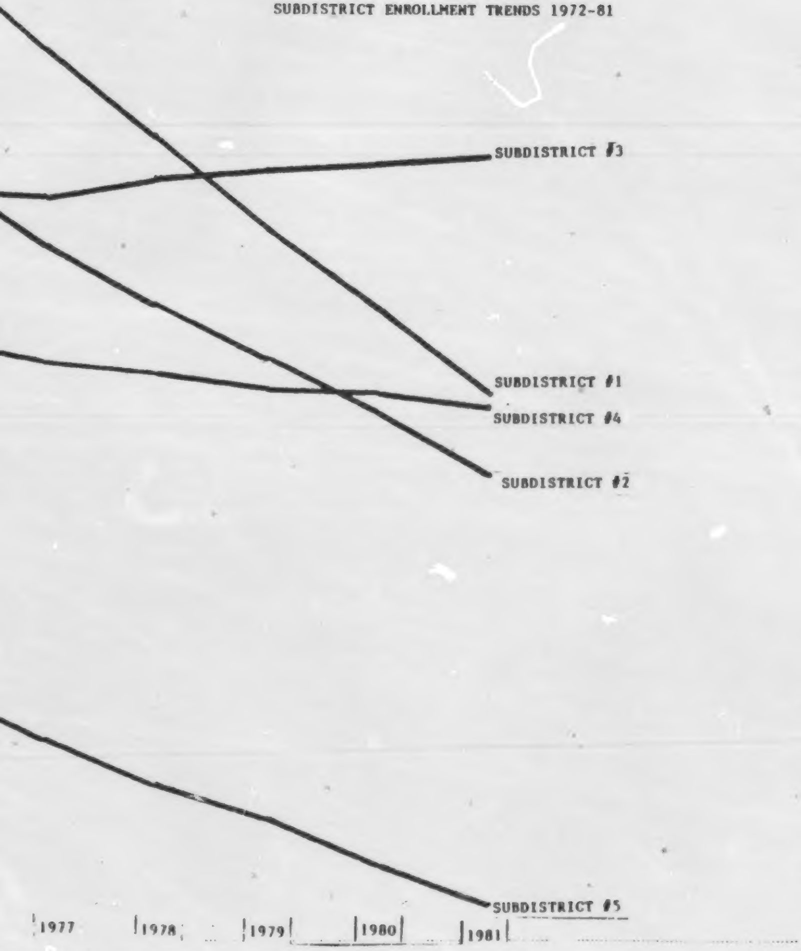




#1 NORTHWEST
#2 NORTHEAST
#3 SOUTHWEST
#4 EAST OAKCLIFF
#5 SOUTHEAST
33200
32400
31600
30800
30000
29200
28400
27600
26800
26000
25200
24400
23600
22800
22000
21200
20400
19600
18800
18000
1970
1971
1972
1973
1974
1975
1976

GRAPH #4

SUBDISTRICT ENROLLMENT TRENDS 1972-81



Subdistrict enrollment, with the exception of the Southeastern Subdistrict, is decreasing.

The largest subdistrict in 1976 was the Northwestern Subdistrict with an enrollment of 31,980. Trend extrapolation projects an enrollment in 1981 of 25,439, resultant from an annual decrease of some four and one-half percent.

The Northeastern Subdistrict had an enrollment of 28,739 in 1976. The history of the Northeastern Subdistrict indicates that its enrollment will decrease at a yearly rate of approximately three and one-half percent through 1981 when its enrollment is projected to be 24,298.

The Southwestern Subdistrict is increasing at a decreasing rate. Its 1976 enrollment was 28,462. Trend analysis yields an enrollment of 28,824 in 1981 resultant from yearly increments of one-half decreasing to two-tenths of one percent in 1981.

The East Oak Cliff Subdistrict trend indicates that its enrollment will decrease from 26,182 in 1976 to 25,315 in 1981 with a yearly change of nearly one-half of one percent.

History of the Southeastern Subdistrict suggests that its enrollment will decrease from 21,261 in 1976 to 18,031 in 1981 with an annual decrease of some three and two-tenths percent.

Analysis of the Seagoville Subdistrict indicates a decrease in enrollment from 2,402 in 1976 to 2,134 in 1981 by an average annual rate of two and four-tenths percent.

Graph 4 shows the trends and relationships of the first five subdistricts. The sixth subdistrict was omitted due to its relative size. Appendix C gives the values for each subdistrict from 1976 through 1981.

District enrollment by grade level follows the District's decreasing trend proportional to the 1976 grade distribution. The projected values for District enrollment by grade are shown in Appendix D. Subdistrict enrollment by grade follows the subdistrict trend in that only subdistrict three is experiencing an increase in enrollment. The projections for enrollment by grade and subdistrict are shown in Appendix E.

Additional Information:

LP77-088-3-5 Enrollment Projections 1977-81, 1977, Kevin van Noppen.

76-837 Eight-Year Enrollment Trends 1968-69 Through 1975-76, 1976, James A. Meier, Rande H. Smodley, 36 pages.

76-847 Forecasts of Dallas Population and DISD Enrollment, 1976, George H. Olson, James A. Meier, William J. Webster.

75-553 Enrollment Projections 1975-1981, 1975, James A. Meier, 37 pages.

75-552 Seven-Year Enrollment Trends, 1975, James A. Meier, 35 pages.

74-248 Six-Year Enrollment Trends, 1974, Clinton C. Schulmacher, 46 pages.

73-192 Five-Year Enrollment Trends. 1973, Clinton C. Schulmacher, 41 pages.

Appendices

Appendix A

Year	Percent of DISD in Dallas	Dallas City Population	DISD Population	School Eligible Cohort	Enrollment
1970	93.22	844401	787151	193428	164937
1971	92.71	864900	801849	194800	159169
1972	92.21	867300	799737	190900	154898
1973	91.71	871400	799161	186000	154014
1974	90.70	878600	796890	181900	149232
1975	90.13	877200	795884	178900	146494
1976	90.21	881400	795111	176400	139080
1977*	89.61	887586	794400	171927	135221
1978*	89.13	891685	793452	168425	132378
1979*	88.65	895783	792492	165029	129582
1980*	88.17	899728	791453	161678	126824
1981*	87.70	903674	7904[illegible]	158373	124094

---

*Projected

Appendix B

Projected Ethnic Composition for the District

Year	Black	Spanish	Anglo	Other
1977*	65336	19847	48811	1227
1978*	66447	20459	44194	1278
1979*	67450	21008	39799	1325
1980*	68330	21531	35596	1367
1981*	69100	21982	31599	1413

---

*Projected

Appendix C

Subdistrict Enrollment 1977-1981

Subdistrict	1976	1977*	1978*	1979*	1980*	1981*
1	31980	30452	29136	27860	26633	25439
2	28739	27653	26780	25929	25111	24298
3	28462	28410	28567	28689	28776	28827
4	26182	25881	25761	25631	25479	25315
5	21261	20472	19830	19217	18618	18031
6	2402	2325	2277	2229	2181	2134

---

*Projected

Appendix D

Enrollment by Grade from 1976-81

Grade	1976	1977*	1978*	1979*	1980*	1981*
K	9359	9102	8911	8723	8537	8354
1	10993	10698	10474	10252	10034	9819
2	10880	10590	10368	10148	9932	9720
3	10431	10144	9931	9721	9514	9310
4	9976	9711	9508	9306	9108	8913
5	10276	9995	9786	9578	9374	9173
6	10603	10306	10090	9876	9666	9459
7	11413	11104	10871	10641	10414	10191
8	11365	11063	10831	10602	10376	10154
9	12359	12023	11771	11522	11277	11035
10	11912	11590	11348	11107	10871	10638
11	10111	9833	9627	9423	9222	9025
12	8198	7980	7813	7647	7485	7324
Special Ed.	1096	1070	1049	1026	1004	983

---

*Projected

Appendix E

Subdistrict Enrollment by Grade 1976-81

Grade/Subdistrict	1976	1977*	1978*	1979*	1980*	1981*
Kindergarten:						
1	2153	2050	1961	1875	1793	1713
2	1934	1861	1803	1745	1690	1636
3	1916	1911	1923	1931	1937	1941
4	1762	1742	1734	1725	1715	1704
5	1431	1378	1335	1294	1253	1214
6	161	156	153	150	147	144
1st Grade:						
1	2528	2409	2305	2204	2107	2013
2	2272	2189	2119	2051	1987	1922
3	2250	2247	2260	2270	2277	2281
4	2070	2048	2038	2028	2016	2003
5	1681	1620	1569	1520	1473	1427
6	189	184	180	176	173	169
2nd Crade:						
1	2502	2385	2282	2181	2086	1993
2	2249	2165	2097	2030	1966	1903
3	2227	2224	2237	2247	2254	2258
4	2049	2027	2018	2007	1995	1983
5	1663	1603	1553	1505	1458	1412
6	187	182	178	174	171	167
3rd Grade:						
1	2399	2284	2186	2090	1998	1909
2	2156	2074	2052	1945	1884	1823
3	2135	2130	2143	2152	2159	2163
4	1964	1942	1933	1923	1911	1899
5	1595	1536	1488	1442	1397	1353
6	179	174	171	167	164	160
4th Grade:						
1	2294	2187	2093	2001	1913	1827
2	2062	1986	1923	1862	1803	1745
3	2042	2039	2052	2060	2067	2070

Appendix E(Continued)

Grade/Subdistrict	1976	1977 *	1978 *	1979 *	1980 *	1981 *
4th Grade (Continued):						
4	1878	1859	1850	1841	1830	1818
5	1524	1470	1424	1380	1337	1295
6	172	167	163	160	157	153
5th Grade:						
1	2363	2251	2154	2059	1968	1880
2	2124	2044	1980	1917	1856	1796
3	2103	2099	2112	2121	2127	2131
4	1935	1913	1904	1894	1883	1871
5	1571	1513	1466	1420	1376	1333
6	177	172	168	165	161	158
6th Grade:						
1	2439	2321	2221	2123	2030	1939
2	2192	2108	2041	1976	1914	1852
3	2170	2164	2177	2186	2193	2197
4	1996	1973	1963	1953	1942	1930
5	1621	1560	1511	1465	1419	1374
6	182	177	173	170	166	163
7th Grade:						
1	2625	2501	2393	2288	2187	2089
2	2359	2271	2199	2129	2062	1995
3	2336	2332	2346	2356	2363	2367
4	2149	2125	2115	2105	2092	2079
5	1745	1681	1628	1578	1529	1481
6	196	191	187	183	179	175
8th Grade:						
1	2618	2491	2284	2279	2179	2082
2	2353	2262	2191	2121	2054	1988
3	2330	2323	2337	2347	2354	2359
4	2144	2117	2108	2097	2084	2071
5	1741	1675	1622	1572	1523	1475
6	196	190	186	182	178	175

Appendix E (Continued)

Grade/Subdistrict	1976	1977 *	1978 *	1979 *	1980 *	1981 *
9th Grade:						
1	2847	2708	2591	2477	2368	2262
2	2559	2459	2381	2305	2233	2161
3	2534	2525	2540	2551	2559	2563
4	2331	2301	2291	2279	2265	2251
5	1893	1820	1763	1709	1655	1603
6	213	207	202	198	194	190
10th Grade:						
1	2740	2610	2498	2388	2283	2181
2	2462	2370	2296	2222	2152	2083
3	2438	2434	2449	2459	2467	2471
4	2243	2218	2208	2197	2184	2170
5	1821	1755	1700	1647	1596	1546
6	205	199	195	191	187	183
11th Grade:						
1	2325	2214	2119	2026	1937	1850
2	2090	2011	1947	1885	1826	1767
3	2070	2065	2077	2086	2092	2096
4	1904	1882	1873	1864	1853	1841
5	1546	1489	1442	1397	1354	1311
6	174	169	166	162	159	155
12th Grade:						
1	1885	1797	1720	1644	1572	1501
2	1694	1632	1581	1530	1482	1434
3	1678	1676	1686	1693	1698	1701
4	1544	1527	1520	1513	1504	1494
5	1253	1208	1170	1134	1099	1064
6	141	137	134	131	129	126
Special Education:						
1	252	241	231	221	211	201
2	226	219	212	205	199	192
3	224	225	226	227	228	228
4	206	205	204	203	202	200
5	168	162	157	152	147	143
6	19	18	18	18	17	17

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* Projection

Abstract

Pupil Distribution Study

Evaluator: Daniel S. Sheehan

Description and Purpose

With enrollment changes being potential concomitants to desegregation programs, it would be informative to compare actual and projected enrollments after the implementation of the District desegregation order. More specifically, it was the purpose of this study to compare the enrollments projected by the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al. (filed in the United States District Court for the Northern District of Texas Dallas Division on April 7, 1976) and the enrollments projected by the District's Department of Institutional Research with actual enrollments. Two actual enrollments were selected. The first was at the beginning of the 1976-1977 school year immediately after the implementation of the desegregation order. The second was after the 1976 State Fair of Texas, a date when yearly enrollments have stabilized.

The enrollment projections and actual enrollments are reported by ethnicity within each elementary, intermediate, middle, and high school in the District. Summarizations are reported by elementary, intermediate, middle, and high schools across subdistricts and across the District as a whole.

Major Evaluation Questions

1. How do elementary school (grades K-3) enrollments compare with the projections developed by the District's Department of Institutional Research?

2. How do elementary school enrollments at the beginning of the school year (September 28) compare with elementary school enrollments after the State Fair of Texas (November 2)?

3. How do intermediate school enrollments compare with the projections in the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al.?

4. How do intermediate school enrollments compare with the projections developed by the District's Department of Institutional Research?

5. How do intermediate school enrollments at the beginning of the school year (September 10) compare with intermediate school enrollments after the State Fair of Texas (November 2)?

6. How do middle school enrollments compare with the projections in the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al.?

7. How do middle school enrollments compare with the projections developed by the District's Department of Institutional Research?

8. How do middle school enrollments at the beginning of the school year (September 10) compare with middle school enrollments after the State Fair of Texas (November 2)?

9. How do high school enrollments compare with the projections in the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al.?

10. How do high school enrollments compare with the projections developed by the District's Department of Institutional Research?

11. How do high school enrollments at the beginning of the school year (September 10) compare with high school enrollments after the State Fair of Texas (November 2)?

Data Sources

Enrollment Projections of the Federal Court

Appendix A of the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al. (filed in the United States District Court for the Northern District of Texas Dallas Division on April 7, 1976) provided enrollment projections by ethnicity for DISD intermediate, middle, and high schools. Enrollment projections by ethnicity for DISD elementary schools were not provided by the Final Order.

Enrollment Projections of the Department of Institutional Research

Elementary School (grades K-3) Enrollment Projections. Institutional Research's elementary school enrollment projections by ethnicity were determined by combining the kindergarten and new-student enrollments of October 4, 1976 with the kindergarten, first, and second grade enrollments of July 23, 1976.

Intermediate School (grades 4-6) Enrollment Projections. Institutional Research's intermediate school enrollment projections by ethnicity were determined by combining the receiver school grades four, five, and six new-student enrollments of October 4, 1976 with the feeder school(s) grades three, four, and five enrollments of July 23, 1976. The feeder school-receiver school patterns were specified by the Final Order from the case of Eddie Mitchell Tasby, et al. vs. Dr. Nolan Estes, et al.

Middle School (grades 7 & 8) Enrollment Projections. Institutional Research's middle school enrollment projections by ethnicity were determined by combining the grades seven and eight new-student enrollments of October 4, 1976 with the grades seven and eight scheduling estimates of July 7, 1976. The scheduling estimates were determined after the Final Order from the case of Tasby vs. Estes and, thus, reflect the feeder school-receiver school pattern established by the Final Order.

High School (grades 9-12) Enrollment Projections. Institutional Research's high school enrollment projections by ethnicity were determined by combining new-student enrollments of October 4, 1976, with scheduling estimates of July 7, 1976, for grades nine, ten, eleven, and twelve.

Actual Enrollments at the Beginning of the School Year

Elementary School Enrollments. The beginning-of-school elementary enrollments by ethnicity were provided by the Enrollment Report by Grade of September 28, 1976. (The Enrollment Report by Grade for a specified date gives the enrollments by grade, by sex, and by ethnicity for each District school on that date. It is provided by the Department of Data Services.) September 10, 1976 enrollment data were inappropriate for elementary schools because most kindergarten enrollments were not reported.

Intermediate, Middle, and High School Enrollments. The beginning-of-school intermediate, middle, and high school enrollments by ethnicity were provided by the Enrollment Report by Grade of September 10, 1976.

Actual Enrollments After the State Fair of Texas

The post-State-Fair-of-Texas elementary, intermediate, middle, and high school enrollments by ethnicity were provided by the Enrollment Report by Grade of November 2, 1976.

Results

Northeast Subdistrict

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the Northeast Subdistrict are shown below. The table shows that the projected enrollment is higher than both actual enrollments and that for Anglos and Mexican-Americans, but not for blacks, the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity: Anglo N	Anglo %	Black N	Black %	Mexican-American N	Mexican-American %
Court's Projection	not given for most schools		not given for most schools		not given for most schools	
Institutional Research's Projection	4080	50.4	2978	36.8	1045	12.9
Beginning-of-School Enrollment (Sept. 28)	3697	48.7	2899	38.2	995	13.1
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3890	49.8	2895	37.1	1021	13.1

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the Northeast Subdistrict are shown below. The table shows that the projected Anglo enrollments are much higher than the actual Anglo enrollments and that the November 2 enrollment is lower than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity: Anglo N	Anglo %	Black N	Black %	Mexican-American N	Mexican-American %
Court's Projection*	3514	52.8	2425	36.4	722	10.8
Institutional Research's Projection	3632	59.3	1755	28.6	739	12.1
Beginning-of-School Enrollment (Sept. 10)	3101	50.9	2262	37.1	726	11.9
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2829	49.8	2172	38.2	678	11.9

*Does not include Reilly intermediate school.

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the Northeast Subdistrict are shown below. The table shows that the projected Anglo and black enrollments are higher than the actual Anglo and black enrollments and that for Anglos and blacks, but not for Mexican-Americans, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2334	58.3	1250	31.2	417	10.4
Institutional Research's Projection	2292	57.3	1258	31.4	451	11.3
Beginning-of-School Enrollment (Sept. 10)	2092	59.4	1002	28.5	427	12.1
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2119	58.6	1075	29.7	421	11.6

High Schools. The enrollment projections and the actual enrollments for the high schools in the Northeast Subdistrict are shown below. The table shows that the projected Anglo and Mexican-American enrollments are higher than the actual Anglo and Mexican-American enrollments and that the November 2 and September 10 enrollments are quite similar.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	6168	63.1	2897	29.6	717	7.3
Institutional Research's Projection	6054	62.9	2828	29.4	739	7.7
Beginning-of-School Enrollment (Sept. 10)	5870	63.0	2762	29.6	691	7.4
Post-State-Fair-of-Texas Enrollment (Nov. 2)	5869	62.3	2858	30.3	691	7.3

Northwest Subdistrict

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the Northwest Subdistrict are shown below. The table shows that the projected Anglo enrollment is much higher than the actual Anglo enrollments and that for Anglos and Mexican-Americans, but not for blacks, the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	not given for many schools		not given for many schools		not given for many schools	
Institutional Research's Projection	3745	42.6	2687	30.6	2359	26.8
Beginning-of-School Enrollment (Sept. 28)	3381	40.9	2624	31.8	2257	27.3
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3420	40.3	2620	30.9	2444	28.8

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the Northwest Subdistrict are shown below. The table shows that the Court's projected Anglo enrollment is much higher than both actual Anglo enrollments and, especially for Anglos, the November 2 enrollment is lower than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	3592	44.7	2484	30.9	1954	24.3
Institutional Research's Projection	3164	43.5	2172	29.9	1930	26.6
Beginning-of-School Enrollment (Sept. 10)	3061	42.3	2306	31.9	1861	25.7
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2609	39.7	2198	33.4	1768	26.9

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the Northwest Subdistrict are shown below. The table shows that the projected Anglo and black enrollments are much higher than both actual Anglo and black enrollments and the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2786	49.7	1717	30.6	1104	19.7
Institutional Research's Projection	2674	47.2	1814	32.0	1182	20.8
Beginning-of-School Enrollment (Sept. 10)	2199	45.8	1532	31.9	1074	22.4
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2221	45.0	1596	32.4	1115	22.6

High Schools. The enrollment projections and the actual enrollments for the high schools in the Northwest Subdistrict are shown below. The table shows that the projected Anglo and Mexican-American enrollments are higher than the actual Anglo and Mexican-American enrollments and the November 2 enrollment is lower than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	6190	58.7	2672	25.4	1677	15.9
Institutional Research's Projection	5582	54.5	3111	30.4	1554	15.2
Beginning-of-School Enrollment (Sept. 10)	5477	55.0	3001	30.1	1486	14.9
Post-State-Fair-of-Texas Enrollment (Nov. 2)	5299	54.7	2954	30.5	1443	14.9

Southeast Subdistrict

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the Southeast Subdistrict are shown below. The table shows that the projected enrollment is quite similar to the actual enrollments and the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	not given for many schools		not given for many schools		not given for many schools	
Institutional Research's Projection	3207	53.3	2295	38.1	520	8.6
Beginning-of-School Enrollment (Sept. 28)	3090	52.2	2311	39.1	515	8.7
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3392	53.5	2398	37.8	549	8.7

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the Southeast Subdistrict are shown below. The table shows that the projected Anglo and black enrollments are higher than the actual Anglo and black enrollments and that for Mexican-Americans, but not for Anglos or blacks, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2709	55.4	1776	36.3	402	8.2
Institutional Research's Projection	2618	52.6	1939	39.0	418	8.4
Beginning-of-School Enrollment (Sept. 10)	2497	53.8	1737	37.5	403	8.7
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2315	51.9	1713	38.4	433	9.7

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the Southeast Subdistrict are shown below. The table shows that the projected Anglo enrollments are much higher than the actual Anglo enrollments and the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2434	59.4	1399	34.1	265	6.5
Institutional Research's Projection	2424	55.4	1597	36.5	357	8.2
Beginning-of-School Enrollment (Sept. 10)	2000	54.8	1336	36.6	314	8.6
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2079	54.4	1421	37.2	325	8.5

High Schools. The enrollment projections and the actual enrollments for the high schools in the Southeast Subdistrict are shown below. The table shows that the projected Anglo enrollments are higher than the actual Anglo enrollments and that for blacks and Mexican-Americans, but not for Anglos, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	3517	60.8	1881	32.5	386	6.7
Institutional Research's Projection	3467	54.4	2449	38.5	452	7.1
Beginning-of-School Enrollment (Sept. 10)	3213	54.1	2317	39.0	410	6.9
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3181	52.8	2421	40.2	419	7.0

Southwest Subdistrict

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the Southwest Subdistrict are shown below. The table shows that the projected Anglo enrollment is higher than the actual Anglo enrollments and that the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	not given for most schools		not given for most schools		not given for most schools	
Institutional Research's Projection	3428	43.5	2103	26.7	2343	29.8
Beginning-of-School Enrollment (Sept. 28)	3219	42.7	2031	26.9	2297	30.4
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3394	41.4	2330	28.4	2478	30.2

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the Southwest Subdistrict are shown below. The table shows that the projected Anglo and Mexican-American enrollments are higher than the actual enrollments and that for blacks and Mexican-Americans, but not for Anglos, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2761	46.6	1602	27.0	1572	26.5
Institutional Research's Projection	2583	44.7	1657	28.7	1542	26.7
Beginning-of-School Enrollment (Sept. 10)	2490	44.4	1615	28.8	1497	26.7
Post-State-Fair-of-Texas Enrollment (Nov. 2)	2381	41.9	1768	31.1	1535	27.0

East Oak Cliff Subdistrict

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the East Oak Cliff Subdistrict are shown below. The table shows that the projected Anglo enrollment is lower than the actual Anglo enrollments and that for blacks and Mexican-Americans, but not for Anglos, the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	not given for most schools		not given for most schools		not given for most schools	
Institutional Research's Projection	41	.5	7452	96.7	211	2.7
Beginning-of-School Enrollment (Sept. 28)	83	1.1	7246	96.2	206	2.7
Post-State-Fair-of-Texas Enrollment (Nov. 2)	48	.6	7759	96.8	212	2.6

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the East Oak Cliff Subdistrict are shown below. The table shows that the projected Anglo enrollments are lower than the actual Anglo enrollments; the Court's projected black enrollment is much higher than the actual black enrollments; Institutional Research's projected black enrollment is much lower than the actual black enrollments; and that the November 2 enrollment for Anglos and Mexican-Americans, but not for blacks, is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	33	.4	7169	97.3	163	2.2
Institutional Research's Projection	47	.8	5874	96.9	141	2.3
Beginning-of-School Enrollment (Sept. 10)	54	.8	6468	96.9	156	2.3
Post-State-Fair-of-Texas Enrollment (Nov. 2)	56	.9	6363	96.8	157	2.4

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the Southwest Subdistrict are shown below. The table shows that the projected Anglo enrollments are higher than the actual Anglo enrollments, the projected black enrollments are lower than the actual black enrollments, and that the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	2194	50.6	1146	26.4	994	22.9
Institutional Research's Projection	2183	44.2	1495	30.3	1259	25.5
Beginning-of-School Enrollment (Sept. 10)	1807	40.9	1551	35.1	1059	24.0
Post-State-Fair-of-Texas Enrollment (Nov. 2)	1821	39.9	1620	35.5	1123	24.6

High Schools. The enrollment projections and the actual enrollments for the high schools in the Southwest Subdistrict are shown below. The table shows that the Court's projected Anglo enrollment is higher than the actual Anglo enrollments, the Court's projected black enrollment is much lower than the actual black enrollments, and that the November 2 enrollment is lower than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	4014	54.2	1919	25.9	1477	19.9
Institutional Research's Projection	3709	45.7	2908	35.8	1497	18.4
Beginning-of-School Enrollment (Sept. 10)	3768	45.3	3039	36.6	1506	18.1
Post-State-Fair-of-Texas Enrollment (Nov. 2)	3507	43.9	3012	37.7	1464	18.3

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the East Oak Cliff Subdistrict are shown below. The table shows that the projected Anglo enrollments are lower than the actual Anglo enrollments; the projected black enrollments are higher than the actual black enrollments; and that for blacks and Mexican-Americans, but not for Anglos, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	21	.4	4815	98.3	63	1.3
Institutional Research's Projection	34	.7	4814	97.4	96	1.9
Beginning-of-School Enrollment (Sept. 10)	47	1.0	4442	97.6	63	1.4
Post-State-Fair-of-Texas Enrollment (Nov. 2)	40	.8	4606	97.7	69	1.5

High Schools. The enrollment projections and the actual enrollments for the high schools in the East Oak Cliff Subdistrict are shown below. The table shows that Institutional Research's projected enrollments are higher than actual enrollments and that for blacks, but not for Anglos and Mexican-Americans, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	7	.1	6752	99.6	17	.2
Institutional Research's Projection	29	.4	7246	98.8	62	.8
Beginning-of-School Enrollment (Sept. 10)	21	.3	6540	99.2	34	.5
Post-State-Fair-of-Texas Enrollment (Nov. 2)	16	.2	6847	99.3	32	.5

Seagoville Subdistrict

Seagoville K-4 School. The enrollment projections and the actual enrollments for the Seagoville K-4 school are shown below. The table shows that the projected Anglo enrollments are higher than the actual enrollments and that the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity: Anglo N	Anglo %	Black N	Black %	Mexican-American N	Mexican-American %
Court's Projection	549	82.8	85	12.8	29	4.4
Institutional Research's Projection	586	84.7	74	10.7	32	4.6
Beginning-of-School Enrollment (Sept. 28)	520	84.0	69	11.1	30	4.8
Post-State-Fair-of-Texas Enrollment (Nov. 2)	539	83.6	75	11.6	31	4.8

Kleberg K-6 School. The enrollment projections and the actual enrollments for the Kleberg K-6 school are shown below. The table shows that the projected Anglo enrollments are lower than the actual Anglo enrollments and that for Anglos and blacks the November 2 enrollment is higher than the September 28 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity: Anglo N	Anglo %	Black N	Black %	Mexican-American N	Mexican-American %
Court's Projection	236	69.6	83	24.5	20	5.9
Institutional Research's Projection	253	71.7	77	21.8	23	6.5
Beginning-of-School Enrollment (Sept. 28)	260	72.4	78	21.7	21	5.8
Post-State-Fair-of-Texas Enrollment (Nov. 2)	279	73.2	81	21.3	21	5.5

Central 5 & 6 School. The enrollment projections and the actual enrollments for the Central 5 & 6 school are shown below. The table shows that Institutional Research's projected enrollment is quite similar to the actual enrollments and that for Anglos and Mexican-Americans the November 2 enrollment is lower than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	240	86.3	22	7.9	16	5.8
Institutional Research's Projection	224	82.4	29	10.7	19	7.0
Beginning-of-School Enrollment (Sept. 10)	233	82.9	29	10.3	19	6.8
Post-State-Fair-of-Texas Enrollment (Nov. 2)	221	82.5	29	10.8	18	6.7

Seagoville 7 - 12 School. The enrollment projections and the actual enrollments for the Seagoville 7 - 12 school are shown below. The table shows that the Court's projected enrollment is lower than the actual enrollments; Institutional Research's projected enrollment is higher than the actual enrollments; and that for blacks and Mexican-Americans, but not for Anglos, the November 2 enrollment is higher than the September 10 enrollment.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	817	81.1	148	14.7	43	4.3
Institutional Research's Projection	966	80.2	174	14.4	65	5.4
Beginning-of-School Enrollment (Sept. 10)	843	79.8	161	15.2	53	5.0
Post-State-Fair-of-Texas Enrollment (Nov. 2)	827	79.2	164	15.7	54	5.2

The Whole DISD

Elementary Schools. The enrollment projection and the actual enrollments for the elementary schools in the DISD are shown below.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	not given for most schools		not given for most schools		not given for most schools	
Institutional Research's Projection	15087	38.5	17589	44.9	6510	16.6
Beginning-of-School Enrollment (Sept. 28)	13990	37.3	17180	45.9	6300	16.8
Post-State-Fair-of-Texas Enrollment (Nov. 2)	14683	37.2	18077	45.8	6735	17.1

Institutional Research's enrollment projection of Anglo students exceeds both the September 28 and November 2 actual enrollments. Institutional Research's enrollment projections of black and Mexican-American students exceed the September 28 actual enrollments, but are less than the November 2 actual enrollments.

Institutional Research's projection of the percentage of Anglo students exceeds both the September 28 and November 2 percentages of Anglo students. Institutional Research's projections of the percentages of black and Mexican-American students are less than both the September 28 and November 2 percentages of black and Mexican-American students.

The November 2 enrollment of Anglo, black, and Mexican-American students exceeds the September 28 enrollment. There are proportionately less Anglo and black students, and more Mexican-American students on November 2.

Intermediate Schools. The enrollment projections and the actual enrollments for the intermediate schools in the DISD are shown below.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	13085	39.1	15561	46.5	4849	14.5
Institutional Research's Projection	12521	40.6	13503	43.8	4812	15.6
Beginning-of-School Enrollment (Sept. 10)	11696	37.9	14495	46.9	4683	15.2
Post-State-Fair-of-Texas Enrollment (Nov. 2)	10690	36.1	14324	48.4	4610	15.6

The Court's and Institutional Research's enrollment projections of Anglo and Mexican-American students exceed both the September 10 and November 2 actual enrollments. The Court's enrollment projection of black students exceeds both the September 10 and November 2 actual enrollments, while Institutional Research's enrollment projection is less than both actual enrollments.

The Court's and Institutional Research's projections of the percentage of Anglo students exceed both the September 10 and November 2 percentages of Anglo students. The Court's and Institutional Research's projections of the percentage of black students are less than both the September 10 and November 2 percentages of black students. The Court's projection of the percentage of Mexican-American students is less than both actual percentages, while Institutional Research's projection exceeds the September 10 percentage and is the same as the November 2 percentage.

The November 2 enrollment of Anglo, black, and Mexican-American students is less than the September 10 enrollment. There are proportionately less Anglo and more black and Mexican-American students on November 2.

Middle Schools. The enrollment projections and the actual enrollments for the middle schools in the DISD are shown below.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	9769	42.6	10327	45.0	2843	12.4
Institutional Research's Projection	9607	40.1	10978	45.9	3345	14.0
Beginning-of-School Enrollment (Sept. 10)	8145	38.9	9863	47.1	2937	14.0
Post-State-Fair-of-Texas Enrollment (Nov. 2)	8280	38.2	10318	47.7	3053	14.1

The Court's and Institutional Research's enrollment projections of Anglo and black students exceed both the September 10 and November 2 actual enrollments. The Court's enrollment projection of Mexican-American students is less than both the September 10 and November 2 actual enrollments, while Institutional Research's enrollment projection exceeds both actual enrollments.

The Court's and Institutional Research's projections of the percentage of Anglo students exceed both the September 10 and November 2 percentages of Anglo students. The Court's and Institutional Research's projections of the percentage of black students are less than both the September 10 and November 2 percentages of black students. The Court's projection of the percentage of Mexican-American students is less than both actual percentages, while Institutional Research's projection is less than the November 2 percentage and the same as the September 10 percentage.

The November 2 enrollment of Anglo, black, and Mexican-American students exceeds the September 10 enrollment. There are proportionately less Anglo and more black and Mexican-American students on November 2.

High Schools. The enrollment projections and the actual enrollments for the high schools in the DISD are shown below.

Enrollment Projection or Actual Enrollment	Ethnicity					
	Anglo		Black		Mexican-American	
	N	%	N	%	N	%
Court's Projection	20713	50.2	16269	39.4	4317	10.5
Institutional Research's Projection	18841	45.2	18542	44.5	4304	10.3
Beginning-of-School Enrollment (Sept. 10)	19192	46.6	17820	43.3	4180	10.1
Post-State-Fair-of-Texas Enrollment (Nov. 2)	18699	45.5	18256	44.5	4103	10.0

The Court's and Institutional Research's enrollment projections of Mexican-American students exceed both the September 10 and November 2 actual enrollments. The Court's enrollment projection of Anglo students exceeds both actual enrollments, while Institutional Research's enrollment projection is less than the September 10 enrollment and exceeds the November 2 enrollment. The Court's enrollment projection of black students is less than both actual enrollments, while Institutional Research's enrollment projection exceeds both actual enrollments.

The Court's and Institutional Research's projections of the percentage of Mexican-American students exceed both the September 10 and November 2 percentages of Mexican-American students. The Court's projection of the percentage of Anglo students exceeds both actual percentages, while Institutional Research's projection is less than both actual percentages. The Court's projection of the percentage of black students is less than both actual percentages, while Institutional Research's projection is greater than the September 10 actual percentage and the same as the November 2 actual percentage.

The November 2 enrollment of Anglo and Mexican-American students is less than the September 10 enrollment. The November 2 enrollment of black students is greater than the September 10 enrollment. There are proportionately more black and less Anglo and Mexican-American students on November 2.

Conclusions

Three relatively consistent differences are apparent from the District-wide summaries. First of all, at the intermediate, middle, and high school grade levels actual and percentage Anglo enrollments are less than Institutional Research's projections.

Secondly, at the intermediate, middle, and high school grade levels the percentage minority (black and Mexican-American) enrollments are greater than the Court's projections. At the elementary, intermediate, and middle school grade levels the percentage minority enrollments are greater than Institutional Research's projections.

Finally, the percentage minority enrollments at all four grade levels are greater on November 2 (after the State Fair of Texas) than on September 10 or September 28 (at the beginning of school).

Additional Information:

IR77-023-9-5 Pupil Distribution Study, 1977, Daniel S. Sheehan, Mary Marcus.

CR77-028-31-5

Abstract

December 15, 1976 Report to the Court

Principal Evaluator: Deberie G. Adkins

Description and Purpose: The Dallas Independent School District's Department of Research, Evaluation, and Information Systems was charged with the responsibility of acting as an internal accountability agent by providing data relevant to the District's implementation of the desegregation plan mandated by the U. S. District Court, Northern District of Texas, on April 7, 1976. Reports must be generated and filed with the Court on December 15 and April 15 through the 1978-79 school year.

Purpose of Internal Accountability: The primary objective of the internal accountability system, as it relates to the Court, is to provide specified court-ordered information at the required time. This information should aid the Court in determing whether or not the District has taken steps to implement the order in good faith. The accuracy of the reports, filed with the Court, will be verified by the Educational Testing Service (ETS), contracted as the Court appointed outside auditor.

Principal Areas of Accountability

1. The number and percentage of pupils by ethnicity attending each educational center, including Vanguard schools, Academies, and Magnet high schools.
2. The number and percentage of pupils by ethnicity being transported for desegregation purposes to 4-6 and 7-8 centers and to Vanguard schools, Academies and Magnet high schools.
3. Majority to Minority transfers:
    a. The number and percentage of pupils by ethnicity and by school participating in this program.
    b. The transportation facilities available and convenience of transportation.
    c. Efforts made by the DISD to increase participation in this program.
4. The number and percentage of Mexican-American pupils participating in the Minority to Majority transfer program.

5. The status of the following programs:

   a. The Early Childhood Education Program (K-3).

   b. 4-8 Vanguard and Academy Programs.

   c. 9-12 Magnet Programs.

      1. Efforts of the DISD to encourage student enrollment in magnet programs.

      2. Course offerings in each of the magnet programs in operation.

      3. The progress of increasing the number of magnet schools and their location in terms of the timetable set forth in this order.

   d. The Bilingual Program.

   e. The Multicultural Social Studies Program.

6. The number and percentage of teachers by ethnicity assigned full time in each educational center, including Vanguard schools, Academies and Magnet schools.

7. The progress toward affirmative action in attaining the recruiting and employment goal, including the number and percentage of new teachers and administrators by ethnicity engaged by the DISD.

8. The current status of capital outlay projects, and the allocation of bond issue funds in relation to the priorities and programs established by this order.

9. The results of the annual standardized achievement tests program by school, grade (grades 2,4,6,8,9 and 12) and ethnicity.

10. Efforts made by the DISD to successfully implement the Order of this Court, in the following areas:

    a. Parent involvement efforts.

    b. Staff development programs.

    c. Communications and community relations programs.

    d. Student leadership training programs.

    e. Safety and Security (including due process procedures).

Primary Data Sources and Procedures:

1. Data relevant to the numbers and percentages of students attending educational centers, by ethnicity, were obtained from the C-56 Enrollment Report generated by Data Services and Data Processing. Enrollment F-Cards were completed for each student in each center, and were delivered to the Office of Pupil Accounting.

2. Transportation information was obtained from the Office of Pupil Accounting.

3. Majority to Minority transfer information was obtained from the Office of Pupil Accounting. Information relevant to the District's effort to encourage participation in this program was obtained from the Communications Department.

4. Minority to Majority information was obtained from the Office of Pupil Accounting.

5. Information relevant to specific programs, including Early Childhood Education, Vanguards and Academies, Magnet High Schools, Bilingual, and Multicultural Social Studies, was obtained from the appropriate administrative personnel charged with the responsibility of coordinating the implementation of each program.

6. Teacher assignment data were obtained from the Personnel Department and verified by R & E.

7. Administrative level employment data were obtained from the Personnel Department and verified by R & E.

8. Data relevant to capital outlay projects, and allocation of bond issue funds were obtained from Board of Education documents, a previous Order of the Court, and the Support Services Department.

9. The results of the District's annual standardized achievement tests were not available at the time of this report.

10. Data relevant to the efforts made by the District in the areas of parental involvement, staff development, community relations, student leadership training, and safety and security, were obtained from the appropriate administrative personnel charged with the responsibility of implementation of activities related to these areas.

Audit Results:

1. It would be difficult to summarize the results contained in the C-56 Enrollment report since enrollment is reported by school, by grade, and by ethnicity. The interested reader would want to study the entire report in detail. The following table shows a comparison of the overall enrollment for December, 1975 and November, 1976.

	ANGLO		BLACK		M-A		DISTRICT TOTAL
	No.	%	No.	%	No.	%	
Dec., 1975	59,466	42.1	62,767	44.5	18,889	13.4	141,122
Nov., 1976	54,398	39.0	65,228	46.8	19,775	14.2	139,401

The decline in Anglo enrollment was concentrated in grades 4-8 where approximately 70.7% of the Anglo students were lost.

The following table shows the ethnic breakdown of enrollment in the Vanguard Schools, Academies, and Magnet High Schools.

Vanguard Schools (Grades 4-6)

School	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
Maynard Jackson	6	0.9	638	98.8	2	0.3	646
Sidney Lanier	65	15.4	102	24.1	256	60.5	423
K. B. Polk	97	71.8	36	26.7	2	1.5	135
Mark Twain	92	29.2	209	66.4	14	4.4	315
Amelia Earhart	12	6.4	123	65.4	53	28.2	188

Academies (Grades 7-8)

School	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
P. C. Anderson	12	4.2	271	95.4	1	0.4	284
O. W. Holmes	27	16.5	131	80.4	5	3.1	163
Sequoyah	11	12.8	59	68.6	16	18.6	86

Magnet High Schools (Full-time & Part-time Students)

School	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
Business and Management	218	14.7	1030	69.5	234	15.8	1482
Creative Arts	289	40.8	364	51.4	55	7.8	708
Health Professions	261	29.8	515	58.9	99	11.3	875
Transportation	182	29.3	313	50.2	128	20.5	623

All data reported in paragraph 1 are current as of November 16, 1976.

Clearly, the Vanguard Schools and Academies did not achieve the specified ethnic balances of 44% Anglo, 44% Black, and 12% Mexican-American. Although the Anglo students were underrepresented in three of the four Magnet High Schools, student stations were held in reserve for Anglo students.

2. The following table shows the number and percentage of pupils, by ethnicity, in grades 4-6, 7-8, Vanguard Schools, Academies, and Magnet High Schools being transported for desegregation purposes.

Grades	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
4-6	4004	36.0	5514	49.6	1595	14.4	11,113
7-8	1806	32.2	3312	59.0	496	8.8	5,614
Vanguards	116	69.4	33	19.8	18	10.8	167
Academies	44	30.8	95	66.4	4	2.8	143
Magnets	950	25.7	2222	60.2	516	14.0	3,688
Totals	6920	33.4	11176	53.9	2629	12.7	20,725

3. a. The following table shows the number and percentages of pupils, by ethnicity, in grades K-6, 7-8, and 9-12 participating in the Majority to Minority transfer program.

Grade Level	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
Elementary	15	6.5	187	80.6	30	12.9	232
Middle School	0	0	281	95.3	14	4.7	295
High School	13	0.9	1351	94.7	63	4.4	1427
Totals	28	1.4	1819	93.1	107	5.5	1954

b. The District provided transportation in the form of buses where 20 or more students traveled from one school. Where fewer than 20 students were transported, Dallas Transit System bus passes were issued. In addition, the District contracted with Highland Hills Transportation Service, Inc. to provide four 16-passenger vans to transport approximately 65 students to Vanguard Schools and Academies.

c. The District encouraged enrollment in the Majority to Minority programs by conducting an intensive two-week M & M campaign in April, 1976. The campaign included: (1) flyers, brochures, pamphlets, and posters in English and Spanish; (2) features in the Dallas Morning News and Dallas Times Herald; (3) television news features on Channels 8, 4, and 13, and (4) extended deadlines for transfer periods.

4. Fifty-one (51) Mexican-American pupils participated in the Minority to Majority transfer program during the first quarter.

5. a. In accordance with the Court Order, the District adopted a "Shared Accountability Program for Monitoring Essential Reading Skills" as part of the Early Childhood Education Plan.

   Principals of K-3 schools were required to submit a 9-page plan, complete with signatures of staff and parents, which was an outline of strategies for implementing the District's baseline curriculum in all subject areas. They were directed to establish Parent Advisory Committees, and to use these committees in planning. Evaluation results have indicated that these committees have not been established in all schools.

   b. The following Vanguard Programs have been in the process of implementation: (1) Mark Twain Fundamental School, (2) Maynard Jackson Center for Individually Guided Education (IGE), (3) K. B. Polk Center for Advanced Studies, (4) Sidney Lanier Center for the Expressive Arts, and (5) Amelia Earhart Montessori School.

   The following Academy Programs have been in the process of implementation: (1) Pearl C. Anderson Career Exploration Academy, (2) Sequoyah Academy for Environmental Science, and (3) Oliver Wendell Holmes Classical Academy.

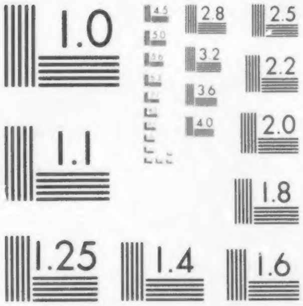
   c. Extensive efforts were made to encourage students to participate in the Magnet High School programs. These efforts included: (1) task force visits to high schools with information presentations, (2) all school counselors were made aware of the availability of the programs, (3) secondary principals recruited students, (4) brochures, pamphlets, and posters were made up and distributed, (5) a 16 mm film was made describing the programs, (6) television and radio announcements were broadcast, (7) $150,000 was pledged for the recruiting campaign by the business community, and (8) twenty-six counselors were employed full time to process applications, and contact students.

   The following clusters, by Magnet school, were offered in addition to the basic academic curriculum:

   (1) Business and Management Center
       Marketing, Management, Office Careers, and Data Processing

   (2) High School for the Health Professions
       Medical, Health Assistant, Dental Assistant, and Dental Laboratory

   (3) Transportation Institute
       Automotive Marketing, Automotive Body Technology, and Automotive Technology.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MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A

(4) Creative Arts Magnet
Performing Arts, and Visual Arts.

The administrative staff, subject to Board approval, contemplates opening the following additional magnet high schools:

(1) Human Services Career Center - City Park School

(2) Humanities Careers Center - Site to be determined

(3) Law and Public Administration Careers Center - Site to be determined

d. The District's Bilingual Program is currently serving pupils of limited English-speaking ability in 29 centers, K-6 (where applicable).

e. The Multicultural Social Studies Program has expanded from the 1975-76 forty-three (43) schools (K-6) to the 1976-77 one hundred five (105) centers, K-6 (where applicable). In addition, Multicultural Social Studies is available as a supplemental program in grades 7-8, and in certain high school facilities as an elective for 9-12 students. Students have access to the 9-12 elective by attending the school where it is offered, or by means of a curriculum transfer.

6. The following table presents the number and percentage of teachers, by ethnicity, assigned full time:

Grade Levels	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
Elementary	2015	63.7	982	31.0	168	5.3	3165
Middle	585	62.1	318	33.8	39	4.1	942
High School	1391	68.8	559	27.7	71	3.5	2021
Totals	3991	65.1	1859	30.3	271	4.4	6128

7. The following table presents the number and percentage of new teachers and of new administrators employed by the District between July 1, 1976 and October 1, 1976.

Position	Anglo		Black		M-A		Total
	No.	%	No.	%	No.	%	
Teachers	366	62.4	108	18.4	113	19.2	587
Administrators	2	15.4	2	15.4	9	69.2	13

8. On September 23, 1976, the Court entered an order authorizing the District to proceed with five construction site selections and acquisition projects, and the following projects have been started with proceeds of the District's 1967 bond issue, allocated as shown:

	Project	Allocation
1.	New K-3 facility in West Dallas for Douglass area.	$ 905,000.
2.	Practice field, playground space, band and drill team space for Franklin D. Roosevelt High School.	101,034.
3.	Construct new Seagoville High School	5,300,000.
4.	Extensive renovations to Hillcrest	627,000.

Construction of a gymnasium at Reagan was held in obeyance by reason of the subsequent bond election.

On December 11, 1976, the Board of Education was authorized, by the voting constituency of Dallas, to issue bonds in the amount of $80,000,000 for the purpose of construction and equipment of school buildings in the District and the purchase of the necessary sites.

9. The results of the District's annual standardized achievement tests are not currently available.

10. a. Parental involvement efforts included: (1) the K-3 shared accountability in reading program, (2) directions to establish Parent Advisory Committees, (3) parent volunteer program, and (4) the Title I Parental Involvement Program.

b. The District submitted, and had approved, a Staff Development Plan to the State Board of Education. The Staff Development calendar was revised to reflect sub-districts and new grade level configurations. East Oak Cliff was given a unique set of calendar days to allow all District resources to be available on those days. Special training sessions were added for the following groups involved with implementing Court ordered programs: principals, security personnel, Title I personnel, Bilingual teachers, Vanguard, Academy and Magnet school faculties, and teachers involved in Early Childhood Education.

c. The District has used a multi-media approach to a continual flow of information regarding all actions related to Court Ordered Desegregation. Flyers, brochures, and pamphlets were disseminated to faculty, students, administrators, community agencies, and business. Two "Information Saturdays" were held with volunteers staffing information tables at 54 shopping centers throughout the city (July 31, 1976 and August 7, 1976).

Task forces were established by community leaders who meet together monthly as an overall Coordinating Network for Desegregation Implementation.

As of November 23, 1976, approximately 233 churches, businesses, civic organizations, realtors, and higher or private education institutions had adopted all Vanguard schools, Academies, Magnet High Schools and 137 additional centers.

Approximately 10,000 copies of "UPDATE," a DISD publication of desegregation progress, have been distributed monthly.

d. The Leaders Interested in the Future of Education (LIFE) leadership training program was expanded to include 1,179 students and 61 teachers/administrators from 17 high schools and 20 middle schools.

A leadership training course was approved by the Texas Education Agency as a two-quarter elective, and was offered in the following schools: Bryan Adams, Kimball, North Dallas, Pinkston, Samuell, Skyline, Grady Spruce, and Sunset.

e. Student safety was insured through the installation of radio equipment in 105 busses, and in the offices of principals of the impacted schools. Procedures were established for the deployment of additional personnel when and where needed. Students were instructed in bus safety. Bus monitors are provided as needed. Due Process procedures exist in the school district.

Additional Information:

CR77-028-8-5 December 15, 1976 Report to the Court 1976, Deberie Gomez Adkins, 100 pages.

CR77-028-82-5 April 15, 1977 Report to the Court, 1977, Deberie Gomez Adkins, 76 pages.

CR77-028-9-5 Reports to the Court, of the Dallas Independent School District, 1976-1977, Deberie Gomez Adkins.

Abstract

April 15, 1977 Report to the Court

Evaluator: Deberie G. Adkins

Description and Purpose: The Dallas Independent School District's Department of Research, Evaluation, and Information Systems was charged with the responsibility of acting as an internal accountability agent by providing data relevant to the District's implementation of the desegregation plan mandated by the U. S. District Court, Northern District of Texas, on April 7, 1976. Reports must be generated and filed with the Court on December 15 and April 15 through the 1978-79 school year.

Purpose of Internal Accountability: The primary objective of the internal accountability system, as it relates to the Court, is to provide specified court-ordered information at the required time. This information should aid the Court in determining whether or not the District has taken steps to implement the order in good faith. The accuracy of the reports, filed with the Court, will be verified by the Educational Testing Service (ETS), contracted as the Court appointed outside auditor.

Principal Areas of Accountability

1. The number and percentage of pupils by ethnicity attending each educational center, including Vanguard schools, Academies, and Magnet high schools.
2. The number and percentage of pupils by ethnicity being transported for desegregation purposes to 4-6 and 7-8 centers and to Vanguard schools, Academies and Magnet high schools.
3. Majority to Minority transfers:
    a. The number and percentage of pupils by ethnicity and by school participating in this program.
    b. The transportation facilities available and convenience of transportation.
    c. Efforts made by the DISD to increase participation in this program.
4. The number and percentage of Mexican-American pupils participating in the Minority to Majority transfer program.

5. The status of the following programs:
   - a. The Early Childhood Education Program (K-3).
   - b. 4-8 Vanguard and Academy Programs.
   - c. 9-12 Magnet Programs.
     1. Efforts of the DISD to encourage student enrollment in magnet programs.
     2. Course offerings in each of the magnet programs in operation.
     3. The progress of increasing the number of magnet schools and their location in terms of the timetable set forth in this order.
   - d. The Bilingual Program.
   - e. The Multicultural Social Studies Program.
6. The number and percentage of teachers by ethnicity assigned full time in each educational center, including Vanguard schools, Academies and Magnet schools.
7. The progress toward affirmative action in attaining the recruiting and employment goal, including the number and percentage of new teachers and administrators by ethnicity engaged by the DISD.
8. The current status of capital outlay projects, and the allocation of bond issue funds in relation to the priorities and programs established by this order.
9. The results of the annual standardized achievement tests program by school, grade (grades 2,4,6,8,9 and 12) and ethnicity.
10. Efforts made by the DISD to successfully implement the Order of this Court, in the following areas:
    - a. Parent involvement efforts.
    - b. Staff development programs.
    - c. Communications and community relations programs.
    - d. Student leadership training programs.
    - e. Safety and Security (including due process procedures).

Primary Data Sources and Procedures:

1. Data relevant to the numbers and percentages of students attending educational centers, by ethnicity, were obtained from the C-56

Enrollment Report generated by Data Services and Data Processing. Enrollment F-Cards were completed for each student in each center, and were delivered to the Office of Pupil Accounting.

2. Transportation information was obtained from the Office of Pupil Accounting.

3. Majority to Minority transfer information was obtained from the Office of Pupil Accounting. Information relevant to the District's effort to encourage participation in this program was obtained from the Communications Department.

4. Minority to Majority information was obtained from Data Processing.

5. Information relevant to specific programs, including Early Childhood Education, Vanguards and Academies, Magnet High Schools, Bilingual, and Multicultural Social Studies, was obtained from the appropriate administrative personnel charged with the responsibility of coordinating the implementation of each program.

6. Teacher assignment data were obtained from the Personnel Department and verified by R & E.

7. Administrative level employment data were obtained from the Personnel Department and verified by R & E.

8. Data relevant to capital outlay projects, and allocation of bond issue funds were obtained from Board of Education documents, a previous Order of the Court, and the Support Services Department.

9. The results of the District's annual standardized achievement tests were obtained from the Institutional Research branch of the Department of Research, Evaluation, and Information Systems.

10. Data relevant to the efforts made by the District in the areas of parental involvement, staff development, community relations, student leadership training, and safety and security, were obtained from the appropriate administrative personnel charged with the responsibility of implementation of activities related to these areas.

Audit Results:

1. It would be difficult to summarize the results contained in the C-56 Enrollment report since enrollment is reported by school, by grade, and by ethnicity. The interested reader would want to study the entire report in detail. The following table shows a comparison of the overall enrollment for December, 1975, November, 1976, and March, 1977.

	ANGLO		BLACK		M-A		
	No.	%	No.	%	No.	%	DISTRICT TOTAL
Dec., 1975	59,466	42.1	62,767	44.5	18,889	13.4	141,122
Nov., 1976	54,398	39.0	65,228	46.8	19,775	14.2	139,401
March, 1977	53,555	38.8	64,867	46.9	19,798	14.3	138,220

The decline in Anglo enrollment was concentrated in grades 4-8 where approximately 70.7% of the Anglo students were lost from December, 1975 to November, 1976.

The following table shows the ethnic breakdown of enrollment in the Vanguard Schools, Academies, and Magnet High Schools.

Vanguard Schools (Grades 4-6)

	Anglo		Black		M-A		
School	No.	%	No.	%	No.	%	Total
Maynard Jackson	6	1.0	623	98.7	2	.3	631
Sidney Lanier	63	14.8	104	24.5	258	60.7	425
K. B. Polk	98	72.1	36	26.4	2	1.5	136
Mark Twain	107	33.2	202	62.7	13	4.1	322
Amelia Earhart	12	6.8	117	66.5	47	26.7	176

Academies (Grades 7-8)

	Anglo		Black		M-A		
School	No.	%	No.	%	No.	%	Total
P. C. Anderson	13	4.7	260	94.9	1	.4	274
O. W. Holmes	24	14.4	139	83.2	4	2.4	167
Sequoyah	11	12.8	58	67.4	17	19.8	86

Magnet High Schools (Full-time & Part-time Students)

	Anglo		Black		M-A		
School	No.	%	No.	%	No.	%	Total
Business and Management	210	14.4	1,023	70.2	225	15.4	1,458
Creative Arts	334	44.8	343	46.0	69	9.2	746
Health Professions	231	29.0	479	60.1	86	10.9	796
Transportation	162	29.4	269	48.8	120	21.8	551

All data reported in paragraph 1 are current as of March 1, 1977.

Clearly, the Vanguard Schools and Academies did not achieve the specified ethnic balances of 44% Anglo, 44% Black, and 12% Mexican-American. Although the Anglo students were underrepresented in three of the four Magnet High Schools, student stations were held in reserve for Anglo students.

2. The following table shows the number and percentage of pupils, by ethnicity, in grades 4-6, 7-8, Vanguard Schools, Academies, and Magnet High Schools being transported for desegregation purposes.

Grades	Anglo		Black		M-A		
	No.	%	No.	%	No.	%	Total
4-6	2844	31.1	4890	53.4	1422	15.5	9156
7-8	974	25.9	2433	64.7	353	9.4	3760
Vanguards	153	64.8	48	20.4	35	14.8	236
Academies	43	34.4	74	59.2	8	6.4	125
Magnets	1102	29.0	2172	57.2	523	13.8	3797
Totals	5116	30.0	9617	56.3	2341	13.7	17074

3. a. The following table shows the number and percentages of pupils, by ethnicity, in grades K-6, 7-8, and 9-12 participating in the Majority to Minority Transfer program.

Grade Level	Anglo		Black		M-A		
	No.	%	No.	%	No.	%	Total
Elementary	19	10.8	136	77.3	21	11.9	176
Middle School	0	0.0	1	100.0	0	0.0	1
High School	10	0.9	1062	92.9	71	6.2	1143
Totals	29	1.8	1462	91.8	101	6.4	1592

b. The District provided transportation in the form of buses where 20 or more students traveled from one school. Where fewer than 20 students were transported, Dallas Transit System bus passes were issued. In addition, the District contracted with Highland Hills Transportation Service, Inc. to provide four 16-passenger vans to transport approximately 65 students to Vanguard Schools and Academies.

c. The District encouraged enrollment in the Majority to Minority programs by conducting an intensive two-week M & M campaign in April, 1976. The campaign included: (1) flyers, brochures, pamphlets, and posters in English and Spanish; (2) features in the Dallas Morning News and Dallas Times Herald; (3) television news features on Channels 8, 4, and 13, and (4) extended deadlines for transfer periods.

4. Thirty-four (34) Mexican-American pupils participated in the Minority to Majority transfer program during the first quarter.

5. a. In accordance with the Court Order, the District adopted a "Shared Accountability Program for Monitoring Essential Reading Skills" as part of the Early Childhood Education Plan.

   Principals of K-3 schools were required to submit a 9-page plan, complete with signatures of staff and parents, which was an outline of strategies for implementing the District's baseline curriculum in all subject areas. They were directed to establish Parent Advisory Committees, and to use these committees in planning. Evaluation results have indicated that these committees have not been established in all schools.

   b. The following Vanguard Programs have been in the process of implementation: (1) Mark Twain Fundamental School, (2) Maynard Jackson Center for Individually Guided Education (IGE), (3) K. B. Polk Center for Advanced Studies, (4) Sidney Lanier Center for the Expressive Arts, and (5) Amelia Earhart Montessori School.

   The following Academy Programs have been in the process of implementation: (1) Pearl C. Anderson Career Exploration Academy, (2) Sequoyah Academy for Environmental Science, and (3) Oliver Wendell Holmes Classical Academy.

   c. Extensive efforts were made to encourage students to participate in the Magnet High School programs. These efforts included: (1) task force visits to high schools with information presentations, (2) all school counselors were made aware of the availability of the programs, (3) secondary principals recruited students, (4) brochures, pamphlets, and posters were made up and distributed, (5) a 16 mm film was made describing the programs, (6) television and radio announcements were broadcast, (7) $150,000 was pledged for the recruiting campaign by the business community, and (8) twenty-six counselors were employed full time to process applications, and contact students.

   The following clusters, by Magnet school, were offered in addition to the basic academic curriculum:

   (1) Business and Management Center
   Marketing, Management, Office Careers, and Data Processing

   (2) High School for the Health Professions
   Medical, Health Assistant, Dental Assistant, and Dental Laboratory

   (3) Transportation Institute
   Automotive Marketing, Automotive Body Technology, and Automotive Technology.

(4) Creative Arts Magnet
Performing Arts, and Visual Arts

The administrative staff, subject to Board approval, contemplates opening the following additional magnet high schools:

(1) Human Services Career Center - City Park School

(2) Law and Public Administration Careers Center - Site to be determined

d. The District's Bilingual Program is currently serving pupils of limited English-speaking ability in 29 centers, K-6 (where available qualified personnel permit).

e. The Multicultural Social Studies Program has expanded from the 1975-76 forty-three (43) schools (K-6) to the 1976-77 one hundred five (105) centers, K-6 (where applicable). In addition, Multicultural Social Studies is available as a supplemental program in grades 7-8, and in certain high school facilities as an elective for 9-12 students. Students have access to the 9-12 elective by attending the school where it is offered, or by means of a curriculum tran

6. The following table presents the number and percentage of teachers, by ethnicity, assigned full time:

Grade Levels	Anglo No.	Anglo %	Black No.	Black %	M-A No.	M-A %	Total
Elementary	1940	64.3	920	30.5	156	5.2	3016
Middle	703	60.9	402	34.8	49	4.2	1154
High School	1416	68.7	573	27.8	72	3.5	2061
Totals	4059	65.1	1895	30.4	277	4.5	6231

7. The following table presents the number and percentage of new teachers and of new administrators employed by the District between July 1, 1976 and January 31, 1977.

Position	Anglo No.	Anglo %	Black No.	Black %	M-A No.	M-A %	Total
Teachers	659	64.6	216	21.4	143	14.0	1021
Administrators	2	13.3	2	13.3	11	73.4	15

8. On September 23, 1976, the Court entered an Order authorizing the District to proceed with five construction site selections and acquisition projects, and the following projects have been commenced or completed with proceeds of the District's 1967 bond issue, allocated as shown:

		Allocation	Status
1.	New K-3 facility in West Dallas for Douglass area.	$ 905,000.	Commenced
2.	Practice field, playground space, band and drill team space for Franklin D. Roosevelt High School.	101,034.	Completed
3.	Construct new Seagoville High School	5,300,000.	Commenced
4.	Extensive renovations to Hillcrest	627,000.	Commenced

On February 4, 1977, the School District sold $30,000,000 of the $80,000,000 in bonds which the voters at an election held December 15, 1976 authorized to be issued. Projects contemplated include: (1) Purchase of the A. Harris Shopping Center as school site, (2) Renovation and establishment of laboratories in 13 secondary schools, (3) Complete rehabilitation of existing facilities in 6 secondary schools, (4) Modifications in 7 secondary schools, (5) Phase 1-B of Seagoville High School, (6) Renovations to 19 elementary schools, (7) Expansion of the 4 magnet high schools and preparation of a fifth magnet on an existing facility, (8) Site acquisition for Lincoln High School and a new magnet high school, (9) Planning for 6 new elementary schools to replace old facilities, and (10) Planning purchase of safety signal devices.

9. The results of the District's annual standardized achievement tests program by school, grade, (grades 2,4,6,8,9, and 12) and by ethnicity appeared in an extensive volume which would be difficult to summarize here. The report shows the numbers and percentages of students falling into each decile range. The reader is encouraged to examine this report in its entirety (Appendix B, Volume 1 to April 15, 1977 Report to the Court of the Dallas Independent School District).

10. a. Parental involvement efforts included: (1) the K-3 shared accountability in reading program, (2) establishment of Parent Advisory committees, (3) continued soliciting of parent volunteers for school activities, (4) Title I Parental Involvement component, and (5) parent training workshops on a sub-district and district-wide basis.

    b. The District continued efforts to carry out the Staff Development Plan approved by the State Board of Education. The early release days reflected the calendar which was revised to accomodate the six sub-districts with East Oak Cliff receiving special attention.

    Personnel particularly involved in Court ordered activities and programs were given special training workshops before the opening of school, and through the ensuing early months. Teachers new to the District were given a preschool five-day orientation and training session.

The District has established the following particular Staff Development programs to help meet the needs of individual groups of employees: (1) Dallas Urban Education Program (DUE) for pre- and in-service teachers, (2) Educational Excellence for in-service Baseline Curriculum training, (3) Job-alike training for support personnel, (4) Supervising Teacher Program for teachers who will have student teachers, (5) Competency-Based Teacher Education for pre- and in-service teacher training, and (6) Management Academy for pre- and in-service personnel destined for leadership roles in the District.

c. The District continues to use a multi-media approach to a continual flow of information regarding all actions related to Court Ordered Desegregation. Flyers, brochures, and pamphlets were disseminated to faculty, students, administrators, community agencies, and business.

Task forces were continued by community leaders who meet together monthly as an overall Coordinating Network for Desegregation Implementation.

As of February 2, 1977, approximately 286 churches, businesses, civic organizations, realtors, and higher or private education institutions had adopted all Vanguard schools, Academies, Magnet High Schools and 137 additional centers.

Approximately 30,000 copies of "UPDATE," a DISD publication of desegregation progress, have been distributed monthly.

d. The Leaders Interested in the Future of Education (LIFE) leadership training program was expanded to include 1,889 students and 1158 certified staff members and paraprofessionals in city-wide high school and middle school sessions. A leadership training course was approved by the Texas Education Agency as a two-quarter elective, and was offered in the following schools: Bryan Adams, Kimball, North Dallas, Pinkston, Samuell, Skyline, Grady Spruce, and Sunset.

e. Student safety was insured through the installation of radio equipment in 105 busses, and in the offices of principals of the impacted schools. Procedures were established for the deployment of additional personnel when and where needed. Students were instructed in bus safety. Bus monitors are provided as needed. Due Process procedures exist in the school district. Seventy-nine (79) additional radios were installed in school buses on February 12, 1977, and 21 more remain to be installed as needed. Funds have been allocated for the purchase and installation of flashing safety signals at school crosswalks.

Additional Information:

CR77-028-8-5 December 15, 1976 Report to the Court, 1976, Deberie Gomez Adkins, 100 pages.

CR77-028-82-5 April 15, 1977 Report to the Court, 1977, Deberie Gomez Adkins, 76 pages.

CR77-028-9-5 Reports to the Court of the Dallas Independent School District, 1976-1977, Deberie Gomez Adkins.

Abstract

Induced Desegregation: Its Effects on Student Achievement and Population Resegregation

Evaluators: William J. Webster
Robert L. Mendro

Purpose of the Evaluation: Heated debate erupted in the social science literature concerning how induced desegregation and its most visible tool, forced bussing, had affected student achievement and associated variables. The proponents of bussing cited research which, they claimed, demonstrated the positive effects of induced desegregation and bussing. Bussing's opponents claimed opposite results. The situation understandably caused a great deal of public and professional confusion about the effects of bussing and induced desegregation.

This paper had two primary purposes. First, in light of the confused state of desegregation research, a representative group of studies on the effects of induced desegregation, including many of the reports that were featured most prominently in the current debate, were reviewed in an attempt to explain some of the factors contributing to the contradictory state of the desegregation dialogue. Second, because of rapidly increasing proportions [illegible] city population in most major urban areas, the relationship between [illegible] desegregation and population instability in large school systems was examined, particularly since such instability related to Anglo enrollment loss. The second phenomenon had been largely ignored in studies [illegible] the effects of induced desegregation.

Evaluation Results: In order to facilitate the examination of the research, a thorough review of methodological techniques appropriate for examining the effects of induced desegregation was presented. It included necessary design prerequisites, statistical analysis techniques, reporting standards, and minimum requirements and precautions when recommended design factors could not be employed. Studies of fifteen induced desegregation programs were examined, using the standards specified in the methodological review. The analysis clearly demonstrated that, in general, the existing literature suffered from many faults both in terms of experimental design and in terms of reporting standards. Particular problems included (a) inadequate descriptions of treatments, subjects, classroom procedures, desegregation procedures, and curriculum implementation; (b) inadequate data on the comparability of treatment groups; (c) incomplete reporting of necessary statistical data; and (d) a nearly total lack of process evaluation.

The examination of the relationship between enrollment patterns and desegregation orders in large-city school systems clearly demonstrated a marked correlation between such orders and Anglo enrollment loss. Although correlation does not necessarily imply causation, the relationship between desegregation orders and abrupt declines in Anglo enrollment was too conspicuous to be attributed to chance. The relationship was particularly strong at the elementary level.

Thus, two major generalizations emerged from the data analyzed in this paper:

1. There did not exist any reliable evidence pertaining to the success or failure of induced desegregation in general, and bussing in particular, and the effects upon student achievement and associated variables. The only statement that existing data appeared to warrant was that the achievement of neither majority nor minority students seemed to be adversely affected by induced desegregation. No conclusive evidence concerning possible positive effects of induced desegregation on minority achievement was presented in the studies reviewed.

2. If the major purpose of desegregating the public schools was to promote societal integration, then current methods were failing in the large cities. The cities and their public school systems were being resegregated at an alarming rate.

Before completing the Executive Summary, and in light of considerable misinterpretation of an earlier draft version of part of this paper, the authors believed it was necessary to discuss three limitations of the paper.

1. It was not a report of original research done by the Dallas Department of Research and Evaluation. It was a thorough review of studies done elsewhere by researchers other than DISD researchers.

2. The paper in no way questioned the validity of the Supreme Court decision of 1954. The purpose of the paper was to examine several effects of induced desegregation as it was currently being implemented. The fact that such implementation was found to be unsatisfactory in light of the evidence on resegregation did not imply that desegregation itself was undesirable. Such a decision would have to deal first with the extent to which moral and ethical issues affect the question of desegregation. The data in the study have absolutely no relevancy to that question.

3. The paper was neither pro- nor anti-bussing. The research on induced desegregation did not deal with bussing alone. If it were possible to draw valid conclusions concerning the adequacy of induced desegregation as an educational treatment, given existing data, such conclusions would be valid only for entire desegregation programs, not for bussing alone. Since the paper clearly demonstrated the inappropriateness of drawing these types of conclusions, any pro-bussing or anti-bussing interpretations of the data in the study had to be supported primarily by the emotions and prejudices of the reader.

What the review did suggest was that valid, consistent evidence did not exist to support the contention that recent court decisions, as they had been implemented by public schools and their associated communities, had substantially contributed to increasing the quality of education for minority students. The paper further suggested that valid, consistent evidence did exist, in the case of large cities, to support the contention that such decisions and their associated implementation had contributed to rapidly increasing resegregation of the public school population, thus thwarting the goal of meaningful integration.

The data suggested that the time had come to examine current policies and procedures designed to end racial isolation and discrimination. Problems of racial isolation in the cities require innovative solutions that are not counterproductive. Such solutions might involve expanding the geographic base for desegregation, partial desegregation involving advanced educational technology and/or the maintenance of specific majority-minority ratios, part-time desegregation for certain types of activities involving equal status contact on neutral turf, the construction and use of educational parks, or combinations of the above. The authors concluded that the time for trying new, innovative approaches to stimulating societal integration through the public schools was now.

Additional Information:

73-204 Induced Desegregation: Its Effects on Student Achievement and Population Resegregation, 1973, William J. Webster, Robert L. Mendro, 70 pages.

Abstract

Desegregation Report No. 1: The Effects of Bussing Status and Student Ethnicity on Achievement Test Scores

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Perspective

Does desegregation affect the achievement of black students? The last two decades have seen this question hotly debated (Armor, 1972; Pettigrew, 1973) and extensively researched (e.g., St. John, 1975). The results, however, are inconclusive and inconsistent. For example, consider three studies that investigated the reading achievement of elementary-level black students. The first study found that desegregation had a positive effect on reading achievement (Griffin, 1969). The second study reported no significant difference in reading achievement gain between transferred and nontransferred students (Moorefield, 1967). Yet the third study reported a significant gain in reading achievement for nontransferred fourth- and fifth-grade students (Mahan, 1968).

The evidence is conflicting but trends can be established. The number of studies reporting positive desegregation effects is greater than the number reporting negative effects. After reviewing over 50 studies, St. John (1975) concluded that desegregation has not rapidly closed the black-white gap in academic achievement, though it has rarely lowered and sometimes raised the scores of black children.

Although fewer studies have investigated the effects of desegregation on Anglo achievement, the results of these studies are no more conclusive. For example, Mayer et al. (1974) reported positive effects on Anglo verbal and mathematics achievement following two years of desegregation. Yet with older students McCullough (1972) reported no significant reading gain over a similar time period. It is also interesting to note that Mayer et al. (1974) found greater gains for those students with little as opposed to much desegregation experience.

Several studies investigated the progress of Anglo students bussed to majority-black schools. Here again, the results are inconclusive. Wrightstone et al. (1966) found that Anglos bussed to a majority-black school made less progress than Anglos who remained at home. Yet Rock et al. (1968) reported significantly higher vocabulary and mathematics scores for fourth-grade students transferred to an inner city school.

After reviewing over 20 studies dealing with desegregation and Anglo achievement, St. John (1975) concluded that Anglo achievement has been unaffected by desegregation in schools that remained majority Anglo. However, majority-black schools are quite possibly detrimental to Anglo achievement.

A review of the desegregation literature is useful in discovering not only what has been done, but also what needs to be done. Future studies should make improvements in two methodological areas. First of all, they should attain a greater level of experimental control. In many studies, when differences were found between segregated and desegregated students, it was not possible to unequivocally associate the differences with desegregation. The two groups of students were simply not equated on the many other factors that influence achievement test scores.

A fairly strong trend is apparent when one considers the degree of experimental control and the level of significance of the findings. The studies with greater experimental control found fewer significant differences between segregated and desegregated students (St. John, 1975). Quite simply, the more completely a study accounted for the factors which influence student achievement, the less likely were the differences attributable to desegregation found to be significant.

The second methodological area in need of improvement is not limited to desegregation research. All of educational research has to begin to look beyond tests of significance and take the extra step and estimate the size or magnitude of the effects of independent variables. The emphasis on statistical significance frequently masks the magnitude of the effects of the independent variables, and, consequently, the educational importance or usefulness of the results.

This study attempted to control for extraneous factors which might influence student achievement, and to estimate the magnitude as well as the significance of the effects of the independent variables. Specifically, our primary purpose was to assess the effects of student bussing status (bussed and nonbussed) on mathematics, reading, and language arts achievement. Note that our comparison was between bussed and nonbussed students, and not between segregated and desegregated students. All of the students in this study were from racially mixed or desegregated schools.

Secondary purposes of the study were to assess the effects of student ethnicity (Anglo, black, and Mexican-American) and the effects of the interaction between ethnicity and bussing status on mathematics, reading, and language arts achievement. The interaction effect examines whether bussing status has a stronger relation to achievement for a specific ethnic group or groups. For example, an interaction would exist if bussing had a stronger relation to black and Mexican-American achievement than it had to Anglo achievement.

Methodology

Sample

Separate samples were constructed at the fourth- and fifth-grade levels. It should be noted that the limiting factor in constructing these samples was the 1976-77 System-Wide Testing Schedule. Impacted schools such as Bayles, Lakewood, Reilly, Reinhardt, and Sanger were sparsely represented or completely missing because they did not fall under the Title I rubric, and consequently, did not undergo any fifth-grade fall or spring or fourth-grade spring Title-I-testing. Any fifth-grade fall or spring or fourth-grade spring testing in these schools was the result of special requests (e.g., by the principal) or of programs other than Title I (e.g., Emergency School Aid Act, ESAA).

Fourth grade. The fourth-grade sample consisted of 2220 students, with 1119 (50.4%) males and 1101 (49.6%) females. The ethnic composition was 1008 (45.4%) Anglos, 852 (38.4%) blacks, and 360 (16.2%) Mexican-Americans.

Table 1 shows the sample breakdown by school. All of the 31 schools in Table 1 were racially mixed during the 1976-77 school year. Twenty-six were involuntarily desegregated by the March, 1976 Federal Court Order. Five (Bowie, Kleberg, Maple Lawn, Polk, and Terry) were naturally integrated, and thus not impacted by the Court Order.

Fifth grade. The fifth-grade sample consisted of 2014 students, with 1031 (51.2%) males and 983 (48.8%) females. The ethnic composition was 882 (43.8%) Anglos, 811 (40.3%) blacks, and 321 (15.9%) Mexican-Americans.

Table 2 shows the sample breakdown by school. All 27 of the schools in Table 2 were racially mixed during the 1976-77 school year. Twenty-three were involuntarily desegregated by the March, 1976 Federal Court Order. The four remaining schools (Bowie, Kleberg, Maple Lawn, and Polk) were naturally integrated, and thus were not impacted by the Court Order.

Dependent Variables

At both the fourth- and fifth-grade levels the dependent variables (or posttest measures) were grade-equivalent scores on the Iowa Tests of Basic Skills (ITBS) language arts, reading, and mathematics subtests. More specifically, they were ITBS subtest scores from testing which took place during the spring (April) of 1977, or seven months after the initiation of student bussing.

Table 1

Fourth-Grade Sample Composition by School

School[1]	Number of Students	Percentage of Students
J. Q. Adams*	140	6.3
Bayles*	17	0.8
Blanton*	84	3.8
Bowie	24	1.1
Burnet*	158	7.1
Burleson*	110	5.0
Caillet*	108	4.9
Connor*	42	1.9
Dorsey*	66	3.0
Foster*	78	3.5
Hawthorne*	113	5.1
Hotchkiss*	54	2.4
Ireland*	110	5.0
Kleberg	33	1.5
Longfellow*	101	4.5
Maple Lawn	23	1.0
Marcus*	82	3.7
Pershing*	65	2.9
Polk	43	1.9
Preston Hollow*	43	1.9
Reilly*	4	0.2
Reinhardt*	1	0.0
Rogers*	109	4.9
Sanger*	2	0.1
San Jacinto*	125	5.6
Terry	37	1.7
Truett*	91	4.1
Walnut Hill*	75	3.4
Williams*	82	3.7
Rowe*	44	2.0
Rylie*	155	7.0

[1] An asterisk denotes a school impacted by the March, 1976 Federal Court Order.

Table 2

Fifth-Grade Sample Composition by School

School[1]	Number of Students	Percentage of Students
J. Q. Adams*	113	5.6
Blanton*	51	2.5
Bowie	27	1.3
Burnet*	156	7.7
Burleson*	90	4.5
Caillet*	99	4.9
Connor*	42	2.1
Dorsey*	21	1.0
Foster*	99	4.9
Hawthorne*	81	4.0
Hotchkiss*	49	2.4
Ireland*	98	4.9
Kleberg	33	1.6
Longfellow*	95	4.7
Maple Lawn	36	1.8
Marcus*	81	4.0
Pershing*	98	4.9
Polk	45	2.2
Preston Hollow*	20	1.0
Rogers*	97	4.8
Sanger*	2	0.1
San Jacinto*	110	5.5
Truett*	84	4.2
Walnut Hill*	69	3.4
Williams*	70	3.5
Rowe*	116	5.8
Rylie*	131	6.5

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[1] An asterisk denotes a school impacted by the March, 1976 Federal Court Order.

Independent Variables

The two independent variables were bussing status and student ethnicity. Students were classified as "bussed" if, beginning in the fall of 1976, they were physically transported by the school district to and from their school for the purposes of racial integration. These students could also be categorized as "non-neighborhood" in that they were attending a school outside of their neighborhood. In terms of Tables 1 and 2, "bussed" students only attended the schools impacted by the Federal Court Order.

Students not physically transported by the school district to and from their school for the purposes of racial integration were classified as "nonbussed." These students attended a school within their neighborhood. "Nonbussed" students attended all of the schools listed in Tables 1 and 2.

The classifications for the second independent variable were, of course, Anglo, black, and Mexican-American.

Control Variables

The control variables were student sex, past-school proportion Anglo, the pretest measures, and family socioeconomic status (SES).

Past-school proportion Anglo was simply the proportion of Anglo students in the school attended by the student during the 1975-76 school year. The proportion was determined by the Health, Education, and Welfare Fall Civil Rights Survey of October, 1975 (Meier and Smedley, 1976).

The pretest measures were ITBS language arts, reading, and mathematics grade-equivalent scores from testing which was coincidental with the initiation of student bussing (September of 1976).

The family SES index was a composite of a student's scores on four social status dimensions (Sheehan and Marcus, 1977):

1. The extent of a family's social and cultural activities,

2. The extent of a family's material possessions,

3. A family's size, and

4. A family's use of a non-English language.

The SES index was formed by using the principal components method to analyze the matrix of Pearson product-moment correlations among the four social status dimensions and by calculating a score for each student on the single component which maximally discriminated among the students' families. These scores were standardized to a mean of zero and a standard deviation of one.

The indices maximally discriminated among the students' families in terms of the underlying social status dimensions. For example, students with larger indices would come from smaller families who have more material possessions, who engage in more social and cultural activities, and who do not use a non-English language. Students with smaller indices would come from larger families who have less material possessions, who engage in fewer social and cultural activities, and who may use a non-English language.

Analyses

Significance of the effects of the independent variables. The fourth and fifth grade data were analyzed separately. In addition, separate analyses were conducted on the mathematics, reading, and language arts data within each grade level. The following linear model was used for each of these analyses.

$$Y = C + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5I_1 + b_6I_2 + b_7E_1 + b_8E_2 + b_9B$$

where,

Y = Dependent variable or posttest score;

C = Constant;

b_1-b_9 = Raw regression coefficients;

X_1 = Student sex;

X_2 = Past-school proportion Anglo;

X_3 = Family SES;

X_4 = Pretest score;

E_1 = Dummy variable (1 if Anglo, 0 if black or Mexican-American);

E_2 = Dummy variable (1 if black, 0 if Anglo or Mexican-American);

B = Dummy variable (1 if bussed, 0 if non-bussed);

I_1 = Dummy variable $B \times E_1$ (1 if Anglo-bussed, else 0); and

I_2 = Dummy variable $B \times E_2$ (1 if black-bussed, else 0).

Sex, past-school proportion Anglo, family SES, and pretest level were controlled or covaried out by entering these terms in the regression model.

The ethnicity by bussing status interaction effect was tested by comparing the full model (containing all of the terms) with the restricted model without the two interaction terms (I_1 and I_2). The difference in sum-of-squares explained between the full and restricted models represented the predictive information the interaction terms added. By dividing the mean square from this difference by the residual mean square obtained under the full model an F ratio was formed to test the significance of the interaction effect.

Similarly, the ethnicity effect was tested by comparing the full model with the restricted model without the two ethnicity terms (E_1 and E_2), and the bussing status effect was tested by comparing the full model with the restricted model without the bussing status term (B).

Magnitude of the effects of the independent variables and the control variables. Again, separate analyses were conducted on the mathematics, reading, and language arts scores within each grade level. For each of these data sets a technique known as commonality analysis was used to estimate the magnitudes of the effects of the independent variables and the control variables (Mood, 1969, 1971; Newton and Spurrell, 1967a, 1967b; name attributed to Mayeske et al., 1969). Specifically, this technique determined how much of the predictable variance in the posttest measures could be uniquely apportioned to either B (bussing status), E (ethnicity), I (ethnicity by bussing status interaction), or Z (sex, past-school proportion Anglo, family SES, and pretest level); and how much was common to all of the pairs, triplets, and the one quadruplet from the four sets of variables.

For example, commonality analysis would ascertain the unique contribution B (bussing status) would make to student posttest scores after adjusting for differences in the E, I, and Z sets of variables. It would also ascertain the common or shared variance B has with various combinations of the E, I, and Z sets.

Suppose the unique contribution of B was small. However, suppose that the unique contributions of E, I, and Z were also small. Also suppose that the predictable variance in the posttest scores (the squared multiple correlation) was large. We would then conclude that there must be a high degree of overlap between our sets of variables in the way these sets relate to posttest scores, and our commonality analysis would provide us with an explanation of this overlap.

Equations reported by Mayeske et al. (1969) were used to apportion the predictable variance in the posttest scores into unique and common components. Specifically, one unique component was calculated for each of the E, B, I, and Z sets of variables. A second-order component was calculated for each of the six pairs (EB, EI, EZ, BI, BZ, and IZ); a third-order component was calculated for each of the four triplets (EBI, EBZ, BIZ, and EIZ); and, of course, a single fourth-order quadruplet (EBIZ) was also calculated.

These unique and common components were unitized or converted into percentages of predictable variance by dividing each component by the squared multiple correlation obtained with all four sets of variables and by multiplying by 100.

Results

Significance of the Effects of the Independent Variables

Fourth grade. Tables 3, 4, and 5 report the summary statistics for the mathematics, reading, and language arts analyses, respectively. Each table presents the sample sizes, the means and standard deviations of the control variables and the unadjusted posttest scores, and the means of the adjusted posttest scores for the six bussing status-ethnicity conditions. Note that while student sex was the actual control variable, proportion female was reported in the summary tables.

None of the differences in adjusted posttest scores between the bussed and nonbussed students was significant. Similarly, the interaction between bussing status and ethnicity was not significant in any of the three achievement areas. However, even after adjusting for the control variables, the differences among the ethnicities were significant [$F = 16.68$, df = 2,2210, $p<0.001$ (mathematics); $F = 18.61$, df = 2,2210, $p<0.001$ (reading); $F = 7.96$, df = 2,2210, $p<0.001$ (language arts)]. In all three areas, the Anglo students had the highest adjusted posttest scores while the black students had the lowest.

Fifth grade. Tables 6, 7, and 8 report the mathematics, reading, and language arts summary statistics, respectively. Again, each table presents the sample sizes, the means and standard deviations of the control variables and the unadjusted posttest scores, and the means of the adjusted posttest scores for the six bussing status-ethnicity conditions.

As at the fourth-grade level, the differences between the bussed and nonbussed students were not significant. Likewise, the interactions between bussing status and ethnicity were not significant. The differences among the ethnicities were, however, significant [$F = 7.66$, df = 2,2004, $p<0.001$ (mathematics); $F = 17.20$, df = 2,2004, $p<0.001$ (reading); $F = 10.17$, df = 2,2004, $p<0.001$ (language arts)]. Once again, Anglo students had the highest adjusted posttest scores and black students had the lowest.

Magnitude of the Effects of the Independent Variables and the Control Variables

Fourth grade. Tables 9, 10, and 11 report the commonality analyses for the mathematics, reading, and language arts posttest scores, respectively. Inspection of the tables shows that the B, E, I, and Z sets of variables accounted for 70.72% of the variance of the mathematics posttest scores, for 65.21% of the variance of the reading posttest scores, and for 74.86% of the variance of the language arts posttest scores. The average unique variance portions of these predictable variances which were attributable to bussing status, ethnicity, the bussing status-ethnicity interaction, and the control variables were 0.01%, 0.60%, 0.01%, and 67.66%, respectively. The average common variance portions of these predictable variances which were attributable

Table 3

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Mathematics Posttest Scores, and Means of Adjusted Mathematics Posttest Scores for the Fourth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Mathematics Posttest Score		Adjusted Mathematics Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Mathematics Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	410	0.50	0.50	0.42	0.94	0.85	0.22	3.76	1.14	4.33	1.25	3.88
Anglo-Non-bussed	598	0.48	0.50	0.57	0.91	0.81	0.19	3.89	1.10	4.57	1.19	3.95
Black-Bussed	583	0.51	0.50	-0.44	0.78	0.05	0.13	2.77	0.79	3.17	0.88	3.69
Black-Non-bussed	269	0.54	0.50	-0.15	0.82	0.32	0.33	2.87	0.81	3.31	0.95	3.70
Mexican-American-Bussed	213	0.49	0.50	-0.81	0.73	0.48	0.36	2.92	0.77	3.41	0.86	3.80
Mexican-American-Nonbussed	147	0.42	0.50	-0.60	0.91	0.58	0.32	3.04	0.78	3.60	1.00	3.83

Table 4

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Reading Posttest Scores, and Means of Adjusted Reading Posttest Scores for the Fourth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Reading Posttest Score		Adjusted Reading Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Reading Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	410	0.50	0.50	0.42	0.94	0.85	0.22	3.81	1.41	4.56	1.51	4.10
Anglo-Non-bussed	598	0.48	0.50	0.57	0.91	0.81	0.19	4.08	1.42	4.86	1.48	4.14
Black-Bussed	583	0.51	0.50	-0.44	0.78	0.05	0.18	2.71	0.89	3.20	1.00	3.76
Black-Non-bussed	269	0.54	0.50	-0.15	0.82	0.32	0.33	2.86	1.01	3.39	1.12	3.77
Mexican-American-Bussed	213	0.49	0.50	-0.81	0.73	0.48	0.36	2.78	0.91	3.44	1.07	3.95
Mexican-American-Nonbussed	147	0.42	0.50	-0.60	0.91	0.58	0.32	2.90	1.09	3.58	1.18	3.97

Table 5

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Language Arts Posttest Scores, and Means of Adjusted Language Arts Posttest Scores for the Fourth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Language Arts Posttest Score		Adjusted Language Arts Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Language Arts Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	410	0.50	0.50	0.42	0.94	0.85	0.22	3.88	1.34	4.58	1.44	4.14
Anglo-Nonbussed	598	0.48	0.50	0.57	0.91	0.81	0.19	4.11	1.40	4.86	1.43	4.18
Black-Bussed	583	0.51	0.50	-0.44	0.78	0.05	0.18	2.85	0.83	3.38	1.00	3.93
Black-Nonbussed	269	0.54	0.50	-0.15	0.82	0.32	0.33	3.16	0.97	3.76	1.18	3.97
Mexican-American-Bussed	213	0.49	0.50	-0.81	0.73	0.48	0.36	2.93	0.86	3.62	0.98	4.07
Mexican-American-Nonbussed	147	0.42	0.50	-0.60	0.91	0.53	0.32	3.10	1.05	3.83	1.30	4.10

Table 6

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Mathematics Posttest Scores, and Means of Adjusted Mathematics Posttest Scores for the Fifth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Mathematics Posttest Score		Adjusted Mathematics Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Mathematics Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	386	0.47	0.50	0.54	0.95	0.86	0.20	4.50	1.34	5.11	1.47	4.50
Anglo-Non-bussed	496	0.50	0.50	0.67	0.90	0.82	0.17	4.73	1.30	5.45	1.40	4.58
Black-Bussed	593	0.49	0.50	-0.46	0.74	0.06	0.20	3.24	1.01	3.67	1.07	4.36
Black-Non-bussed	218	0.50	0.50	-0.32	0.78	0.29	0.34	3.40	1.06	3.89	1.15	4.38
Mexican-American-Bussed	195	0.48	0.50	-0.72	0.73	0.51	0.36	3.71	0.99	4.24	1.14	4.45
Mexican-American-Nonbussed	126	0.46	0.50	-0.38	0.80	0.56	0.27	3.56	1.08	4.14	1.11	4.49

Table 7

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Reading Posttest Scores, and Means of Adjusted Reading Posttest Scores for the Fifth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Reading Posttest Score		Adjusted Reading Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Reading Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	386	0.47	0.50	0.54	0.95	0.86	0.20	4.82	1.48	5.45	1.60	4.71
Anglo-Non-bussed	496	0.50	0.50	0.67	0.90	0.82	0.17	5.05	1.55	5.76	1.54	4.76
Black-Bussed	593	0.49	0.50	-0.46	0.74	0.06	0.20	3.27	1.13	3.66	1.23	4.41
Black-Non-bussed	218	0.50	0.50	-0.32	0.78	0.29	0.34	3.52	1.22	3.88	1.40	4.40
Mexican-American-Bussed	195	0.48	0.50	-0.72	0.73	0.51	0.36	3.46	1.21	4.05	1.39	4.59
Mexican-American-Nonbussed	126	0.46	0.50	-0.38	0.80	0.56	0.27	3.54	1.37	4.16	1.40	4.61

Table 8

Sample Sizes, Means and Standard Deviations of Control Variables and Unadjusted Language Arts Posttest Scores, and Means of Adjusted Language Arts Posttest Scores for the Fifth-Grade Bussing Status-Ethnicity Conditions

Condition	N	Control Variables								Unadjusted Language Arts Posttest Score		Adjusted Language Arts Posttest Score
		Proportion Female		Family SES		Past-School Proportion Anglo		Language Arts Pretest Score				
		M	SD	M	SD	M	SD	M	SD	M	SD	M
Anglo-Bussed	386	0.47	0.50	0.54	0.95	0.86	0.20	4.80	1.49	5.36	1.58	4.68
Anglo-Non-bussed	496	0.50	0.50	0.67	0.90	0.82	0.17	5.00	1.47	5.62	1.57	4.73
Black-Bussed	593	0.49	0.50	-0.46	0.74	0.06	0.20	3.34	1.06	3.79	1.22	4.53
Black-Non-bussed	218	0.50	0.50	-0.32	0.78	0.29	0.34	3.64	1.18	4.04	1.36	4.52
Mexican-American-Bussed	195	0.48	0.50	-0.72	0.73	0.51	0.36	3.80	1.21	4.42	1.35	4.66
Mexican-American-Nonbussed	126	0.46	0.50	-0.38	0.80	0.56	0.27	3.89	1.36	4.41	1.42	4.67

Table 9

Unitized Commonality Analyses of E, B, I, and Z with Fourth-Grade Mathematics Posttest Scores[1, 2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.62%			
U(B)		0.01%		
U(I)			0.04%	
U(Z)				65.46%
Second Order:				
C(EB)	0.03%	0.03%		
C(EI)	0.00%		0.00%	
C(EZ)	13.93%			13.93%
C(BI)		0.11%	0.11%	
C(BZ)		0.11%		0.11%
C(IZ)			0.00%	0.00%
Third Order:				
C(EBI)	0.00%	0.00%	0.00%	
C(EBZ)	3.41%	3.41%		3.41%
C(BIZ)		0.59%	0.59%	0.59%
C(EIZ)	14.34%		14.34%	14.34%
Fourth Order:				
(EBIZ)	1.34%	1.34%	1.34%	1.34%

$R^2(E,B,I,Z)=0.7072$

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

B = Bussing status

I = Ethnicity X bussing status interaction

Z = Control variables (student sex, family SES, past-school proportion Anglo, mathematics pretest grade-equivalent score)

Table 10

Unitized Commonality Analyses of E, B, I, and Z with Fourth Grade Reading Posttest Scores[1, 2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.90%			
U(B)		0.00%		
U(I)			0.00%	
U(Z)				63.49%
Second Order:				
C(EB)	0.00%	0.00%		
C(EI)	0.20%		0.20%	
C(EZ)	14.75%			14.75%
C(BI)		0.05%	0.05%	
C(BZ)		0.06%		0.06%
C(IZ)			0.08%	0.08%
Third Order:				
C(EBI)	0.00%	0.00%	0.00%	
C(EBZ)	3.94%	3.94%		3.94%
C(BIZ)		0.72%	0.72%	0.72%
C(EIZ)	14.74%		14.74%	14.74%
Fourth Order:				
C(EBIZ)	1.07%	1.07%	1.07%	1.07%

$R^2(E,B,I,Z)=0.6521$

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

B = Bussing status

I = Ethnicity X bussing status interaction

Z = Control variables (student sex, family SES, past-school proportion Anglo, reading pretest grade-equivalent score)

Table 11

Unitized Commonality Analyses of E, B, I, and Z with Fourth-Grade Language Arts Posttest Scores[1,2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.24%			
U(B)		0.01%		
U(I)			0.00%	
U(Z)				74.02%
Second Order:				
C(EB)	0.00%	0.00%		
C(EI)	0.13%		0.13%	
C(EZ)	8.68%			8.68%
C(BI)		0.07%	0.07%	
C(BZ)		0.11%		0.11%
C(IZ)			0.05%	0.05%
Third Order:				
C(EBI)	0.00%	0.00%	0.00%	
C(EBZ)	3.37%	3.37%		3.37%
C(BIZ)		1.28%	1.28%	1.28%
C(EIZ)	10.94%		10.94%	10.94%
Fourth Order:				
C(EBIZ)	1.10%	1.10%	1.10%	1.10%

$R^2(E,B,I,Z)=0.7486$

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

B = Bussing status

I = Ethnicity X bussing status interaction

Z = Control variables (student sex, family SES, past-school proportion Anglo, language arts pretest grade-equivalent score) to bussing status, ethnicity, the bussing status-ethnicity interaction, and the control variables were 5.79%, 30.75%, 15.60%, and 31.54%, respectively.

Thus, most (over 98%) of the variance in the posttest scores explainable from ethnicity, from bussing status, and from the bussing status-ethnicity interaction was confounded by second-, third-, and fourth-order combinations. For example, approximately 39% of the variance explainable from ethnicity was confounded with the control variables (second order) and approximately 43% was confounded with the control variables and the bussing status-ethnicity interaction (third order). In addition, approximately 62% of the variance explainable from bussing status was confounded with ethnicity and the control variables (third order).

Fifth grade. Tables 12, 13, and 14 report the commonality analyses for the mathematics, reading, and language arts posttest scores, respectively. The tables show that the B, E, I, and Z sets of variables accounted for 76.98% of the variance of the mathematics posttest scores, for 76.29% of the variance of the reading posttest scores, and for 83.34% of the variance of the language arts posttest scores. The average unique variance portions of these predictable variances which were attributable to bussing status, ethnicity, the bussing status-ethnicity interaction, and the control variables were 0.01%, 0.32%, 0.04%, and 67.02%, respectively. The average common variance portions of these predictable variances which were attributable to bussing status, ethnicity, the bussing status-ethnicity interaction, and the control variables were 5.19%, 32.06%, 18.06%, and 32.48%, respectively.

Thus, most (over 99%) of the variance in the posttest scores explainable from ethnicity, from bussing status, and from the bussing status-ethnicity interaction was again confounded by second-, third-, and fourth-order combinations. For example, approximately 38% of the variance explainable from ethnicity was confounded with the control variables (second order) and approximately 46% was confounded with the control variables and the bussing status-ethnicity interaction (third order). In addition, approximately 40% of the variance explainable from bussing status was confounded with ethnicity and the control variables (third order).

Conclusions

This study has not been able to show that bussing fourth- and fifth-grade students out of their neighborhoods affected their performance on standardized achievement tests. The differences in adjusted posttest scores between bussed and nonbussed students were both statistically not significant and practically unimportant. The predictable variance in the posttest scores uniquely attributable to bussing status was, for all practical purposes, zero. If bussing status did influence achievement test scores, it was by virtue of its shared variance with ethnicity and with the control variables. Yet even this shared variance was very small.

The effect of bussing status was not different for the three ethnic

Table 12

Unitized Commonality Analyses of E, B, I, and Z with Fifth-Grade Mathematics Posttest Scores[1,2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.23%			
U(B)		0.00%		
U(I)			0.04%	
U(Z)				66.27%
Second Order:				
C(EB)	0.00%	0.00%		
C(EI)	0.00%		0.00%	
C(EZ)	13.21%			13.21%
C(BI)		0.10%	0.10%	
C(BZ)		0.03%		0.03%
C(IZ)			0.30%	0.30%
Third Order:				
C(EBI)	0.03%	0.03%	0.03%	
C(EBZ)	1.75%	1.75%		1.75%
C(BIZ)		0.57%	0.57%	0.57%
C(EIZ)	14.35%		14.35%	14.35%
Fourth Order:				
C(EBIZ)	3.10%	3.10%	3.10%	3.10%
$R^2(E,B,I,Z) = 0.7698$				

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

B = Bussing status

I = Ethnicity X bussing status interaction

Z = Control variables (student sex, family SES, past-school proportion Anglo, mathematics pretest grade-equivalent score)

Table 13

Unitized Commonality Analyses of E, B, I, and Z with Fifth-Grade Reading Posttest Scores[1,2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.54%			
U(B)		0.00%		
U(I)			0.03%	
U(Z)				62.22%
Second Order:				
C(EB)	0.00%	0.00%		
C(EI)	0.10%		0.10%	
C(EZ)	14.10%			14.10%
C(BI)		0.01%	0.01%	
C(BZ)		0.03%		0.03%
C(IZ)			0.03%	0.03%
Third Order:				
C(EBI)	0.01%	0.01%	0.01%	
C(EBZ)	3.42%	3.42%		3.42%
C(BIZ)		0.03%	0.03%	0.03%
C(EIZ)	17.28%		17.28%	17.28%
Fourth Order:				
C(EBIZ)	2.20%	2.20%	2.20%	2.20%

$R^2(E,B,I,Z) = 0.7629$

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

[3] B = Bussing status

I = Ethnicity X bussing status interaction

Z = Control variables (student sex, family SES, past-school proportion Anglo, reading pretest grade-equivalent score)

Table 14

Unitized Commonality Analyses of E, B, I, and Z with Fifth-Grade Language Arts Posttest Scores[1],[2]

Commonality Coefficients	Sets of Regressor Variables			
	E	B	I	Z
First Order:				
U(E)	0.20%			
U(B)		0.02%		
U(I)			0.05%	
U(Z)				72.58%
Second Order:				
C(EB)	0.02%	0.02%		
C(EI)	0.06%		0.06%	
C(EZ)	9.77%			9.77%
C(BI)		0.00%	0.00%	
C(BZ)		0.00%		0.00%
C(IZ)			0.06%	0.06%
Third Order:				
C(EBI)	0.00%	0.00%	0.00%	
C(EBZ)	1.27%	1.27%		1.27%
C(BIZ)		0.46%	0.46%	0.46%
C(EIZ)	12.97%		12.97%	12.97%
Fourth Order:				
C(EBIZ)	2.53%	2.53%	2.53%	2.53%

$R^2(E,B,I,Z) = 0.8334$

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[1] Percentages are rounded to two decimal places.

[2] E = Ethnicity

B = Bussing status

I = Ethnicity X bussing status

Z = Control variables (student sex, family SES, past-school proportion Anglo, language arts pretest grade-equivalent score) groups. That is, the interaction between bussing status and ethnicity was not statistically or practically significant. The predictable variance uniquely associated with the interaction was negligible.

Differences in adjusted posttest scores among the ethnicities were statistically significant. In mathematics, reading, and language arts, Anglo students consistently had the highest adjusted scores and black students consistently had the lowest adjusted scores. Yet, in all instances, ethnicity uniquely accounted for less than 1.00% of the predictable variance. Most of the variance attributable to ethnicity was shared with the control variables and with the bussing status-ethnicity interaction. Thus ethnicity played a relatively small independent role in influencing achievement test scores. Its effects were confounded with, and perhaps mediated through, such factors as student sex, social status, prior school experience, and previous level of achievement. It was the interplay between ethnicity and these factors that had a greater effect on achievement test scores.

Extent of exposure to the bussing experience may be a crucial factor in assessing its impact. While seven months of bussing have not been shown to have an influence on achievement, an additional year of bussing may prove otherwise. Thus a follow-up to this study should be conducted after additional achievement test data are collected during the spring of 1978.

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Abstract

Desegregation Report No. 2: Relationships Between Student Attitudes and Selected Background and Achievement Characteristics

Evaluators: Daniel S. Sheehan
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Perspective

The 1954 Brown vs. the Board of Education court ruling has prompted research studies on almost every conceivable outcome of desegregation. Particular interest in desegregation's effects on student attitudes has stimulated numerous investigations. Some of these investigations have focused on such outcomes as students' general and academic self-concept; others have considered racial prejudice; while still others have concerned themselves with aspirations, attitude towards school, and anxiety.

While some very tentative conclusions have been reached, the findings of these studies were, in many cases, as varied as the number of studies conducted. Several examples will serve to illustrate this.

St. John (1973), Armor (1967), and Bachman (1970) concluded that black student aspiration level tends to be negatively correlated with the proportion of Anglo students in a school. Similar research examining general self-concept and school racial composition indicated no significant relationship between these variables (Rosenberg and Simmons, 1971). Mixed findings have been reported on the relationship between racial prejudice and school integration. Almost as many studies found prejudice levels decreasing after school integration as increasing (St. John, 1973).

The lack of more conclusive findings can be better understood when the methodological differences among desegregation studies are noted. Variations in sample composition, instrumentation, research design, and statistical techniques all contributed to the lack of consistent answers to often-asked desegregation questions.

This investigation focused upon selected student attitudinal variables which were felt to represent important educational outcomes that were especially relevant in integrated school environments. Specifically, our purpose was to determine the anticedents of these variables in integrated district intermediate and middle schools. In addition, in spite of the ambiguities that currently exist in the literature, an attempt was made to integrate our findings with those of other investigations by pointing out areas of both agreement and conflict.

The following student attitudinal variables were considered: attitude towards school, academic self-concept, racial prejudice, an

Anglo friendship measure, aspirations, general self-concept, state anxiety, and responsibility for academic successes and failures. The selected antecedent variables included such background and achievement characteristics as sex, achievement level, family socioeconomic status (SES), bussing status, class proportion Anglo, class achievement level, present school proportion Anglo, past school proportion Anglo, and elementary school proportion Anglo. In addition, to focus on differences among the ethnicities (Anglo, black, and Mexican-American), separate analyses were conducted for each ethnic group.

Methodology

Sample

Separate samples were constructed at the fourth-, fifth-, and eighth-grade levels. In constructing these samples, all of the fourth-, fifth-, and eighth-grade first-period academic classes in the intermediate and middle schools impacted by the March, 1976 Federal Court Order were selected. In addition, all of the fourth- and fifth-grade first-period academic classes in eight naturally integrated intermediate schools (Bowie, Central, Field, Kleberg, Maple Lawn, Polk, Stemmons, and Terry) were also selected. However, 28.9%, 26.4%, and 47.8% of the fourth-, fifth-, and eighth-grade samples, respectively, were lost because of such factors as student absenteeism, improperly followed directions, and incomplete responses. Descriptions of the final, useful samples at each grade level follow.

Fourth grade. Table 1 shows the sample breakdown by school. While all of the 34 schools in Table 1 were racially mixed during the 1976-77 school year, the schools marked by asterisks were involuntarily desegregated by the March, 1976 Federal Court Order. The schools not marked by asterisks were naturally integrated, and thus not impacted by the Court Order.

The sample consisted of 2594 students, with 50.2% (1301) males and 49.8% (1293) females. The ethnic composition was 48.8% (1267) Anglos, 36.5% (948) blacks, and 14.6% (379) Mexican-Americans.

The fourth-grade population from which the sample was selected consisted of 49.5% males and 50.5% females. The population's ethnic breakdown was 46.3% Anglos, 38.5% blacks, and 15.2% Mexican-Americans. Thus, the sample overrepresented the population in terms of males and Anglos, and underrepresented the population in terms of females, blacks, and Mexican-Americans. The discrepancies, however, were not appreciable.

Fifth grade. Table 2 shows the sample breakdown by school. As in Table 1, all of the 35 schools in Table 2 were racially mixed during the 1976-77 school year. The schools marked by asterisks were involuntarily desegregated by the March, 1976 Federal Court Order. The schools not

Table 1

Fourth-Grade Sample Composition by School

School[1]	Number of Students	Percentage of Students
J. Q. Adams*	125	4.8
Bayles*	60	2.3
Blanton*	72	2.8
Bowie	25	1.0
Burnet*	153	5.9
Burleson*	86	3.3
Caillet*	107	4.1
Connor*	39	1.5
Dorsey*	56	2.2
Field	17	0.7
Foster*	67	2.6
Hawthorne*	106	4.1
Hotchkiss*	60	2.3
Ireland*	107	4.1
Kleberg	30	1.2
Lakewood*	117	4.5
Longfellow*	86	3.3
Maple Lawn	27	1.0
Marcus*	74	2.9
Pershing*	64	2.5
Polk	45	1.7
Preston Hollow*	42	1.6
Reilly*	131	5.1
Reinhardt*	84	3.2
Rogers*	80	3.1
Sanger*	115	4.4
San Jacinto*	113	4.4
Stemmons	50	1.9
Terry	50	1.9
Truett*	91	3.5
Walnut Hill*	50	1.9
Williams*	75	2.9
Rowe*	48	1.9
Rylie*	141	5.4

[1] An asterisk denotes a school impacted by the March, 1976 Federal Court Order.

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Table 2

Fifth-Grade Sample Composition by School

School[1]	Number of Students	Percentage of Students
J. Q. Adams*	116	4.4
Bayles*	63	2.4
Blanton	45	1.7
Bowie	35	1.3
Burnet*	135	5.2
Burleson	74	2.8
Caillet*	94	3.6
Central	82	3.1
Connor*	44	1.7
Dorsey*	20	0.8
Field	12	0.5
Foster*	100	3.8
Hawthorne*	83	3.2
Hotchkiss*	43	1.6
Ireland*	93	3.5
Kleberg	31	1.2
Lakewood*	88	3.4
Longfellow*	98	3.7
Maple Lawn	35	1.3
Marcus*	77	2.9
Pershing*	78	3.0
Polk	41	1.6
Preston Hollow*	21	0.8
Reilly*	99	3.8
Reinhardt*	121	4.6
Rogers*	90	3.4
Sanger*	148	5.6
San Jacinto*	103	3.9
Stemmons	54	2.1
Terry	59	2.3
Truett*	80	3.1
Walnut Hill*	70	2.7
Williams*	61	2.3
Rowe*	86	3.3
Rylie*	140	5.3

[1] An asterisk denotes a school impacted by the March, 1976 Federal Court Order.

marked by asterisks were naturally integrated, and thus not impacted by the Court Order.

The sample consisted of 2620 students, with 50.0% (1311) males and 50.0% (1309) females. The ethnic composition was 47.7% (1251) Anglos, 38.4% (1006) blacks, and 13.9% (363) Mexican-Americans.

The fifth-grade population from which the sample was selected consisted of 50.6% males and 49.4% females. The population's ethnic breakdown was 48.0% Anglos, 37.9% blacks, and 14.1% Mexican-Americans. Thus, although females and blacks were slightly overrepresented, the sample closely reproduced the sex and ethnic breakdowns of the population.

Eighth grade. Table 3 shows the sample breakdown by school. All of the schools in Table 3 were racially mixed during the 1976-77 school year, and all were involuntarily desegregated by the March, 1976 Federal Court Order.

The sample consisted of 1623 students, with 48.6% (789) males and 51.4% (834) females. The ethnic composition was 58.7% (952) Anglos, 31.5% (512) blacks, and 9.8% (159) Mexican-Americans.

The eighth-grade population from which the sample was selected consisted of 51.5% males and 48.5% females. The population's ethnic breakdown was 55.6% Anglos, 32.7% blacks, and 11.7% Mexican-Americans. Thus, the sample overrepresented the population in terms of females and Anglos, and underrepresented the population in terms of males, blacks, and Mexican-Americans. Once again, however, the discrepancies were not appreciable.

Instruments

School Attitude Scale. The School Attitude Scale was developed by Vitale (1974) to measure students' attitudes or feelings towards school. The scale consists of 11 questions to which a student responds either "yes" or "no." Examples of questions from the scale are:

1. Do you like to stay home from school?

2. Is school exciting? and

3. Do you like having to go to school?

The alpha reliabilities were 0.81 for the fourth-grade sample, 0.82 for the fifth-grade sample, and 0.81 for the eighth-grade sample.

Table 3

Eighth-Grade Sample Composition by School

School[1]	Number of Students	Percentage of Students
Cary*	119	7.3
Comstock*	228	14.0
Florence*	178	11.0
Gaston*	215	13.2
Hill*	144	8.9
Hood*	203	12.5
Marsh*	264	16.3
Rusk*	38	2.3
Walker*	234	14.4

[1] An asterisk denotes a school impacted by the March, 1976 Federal Court Order.

Academic self-Concept Scale. Vitale (1974) developed this scale to measure a student's perception of his or her capabilities in an academic setting. Three of the 11 questions to which a student responds either "yes" or "no" are:

1. Can you give a good report in front of the class?

2. Are you proud of your schoolwork? and

3. Do you forget most of what you learn in school?

The alpha reliabilities for this scale were 0.68, 0.72, and 0.76 for the fourth-, fifth-, and eighth-grade samples, respectively.

Student Prejudice Scale. Designed by Meier (1975), and modified by Papay and Sides (1976), this 15-question scale assesses the feelings of a student towards Anglos, blacks, and Mexican-Americans. The student responds either "yes" or "no" to questions such as:

1. Can whites be trusted?

2. Can blacks be trusted? and

3. Can Mexican-Americans be trusted?

The alpha reliabilities were 0.75, 0.77, and 0.75 for the fourth-, fifth-, and eighth-grade samples, respectively.

Intellectual Achievement Responsibility Scale. Crandall, Katkovsky, and Crandall (1964) developed this instrument to measure the extent to which a student feels that (s)he has control over the successes and failures (s)he receives in an academic setting. Specifically, the IAR scale is composed of 34 forced-choice items. Each item stem describes either a positive or a negative achievement experience which routinely occurs in a student's daily life. This stem is followed by two alternatives, one stating that the event occurred because of the behavior of someone else in the student's immediate environment, and the other stating that the event occurred because of the student. For example, "When you don't do well on a test at school, is it

1. because the test was hard, or

2. because you didn't study for it?"

A student's total score is the sum of all of the positive and negative events for which (s)he assumes credit.

It should be pointed out that this study utilized 20 items from the original IAR scale, including 12 of the 14 items comprising the new short version (Virginia Crandall, personal communication). The alpha reliabilities were 0.56 at the fourth-grade level, 0.59 at the fifth-grade level, and 0.57 at the eighth-grade level.

General Self-Concept Scale. The *General Self-Concept Scale*, adapted from the work of Rosenberg and Simmons (1971), measures whether a student has a favorable view of him/herself as a total person. Its focus is strictly on the individual, irrespective of whether (s)he is black or white, rich or poor, male or female, etc. Two of the six questions that make up this scale are:

1. A person said, "There's a lot wrong with me." How often do *you* feel like this?

2. Another person said, "I am no good." How often do *you* feel like this?

Students respond to these questions by choosing either "a lot," "a little," or "never." Alpha reliabilities for this scale were 0.66, 0.68, and 0.73 for the fourth-, and fifth-, and eighth-grade samples, respectively.

Student Aspirations Scale. The *Student Aspirations Scale*, also adapted from Rosenberg and Simmons (1971), was designed to measure aspirations in the areas of wealth, fame, occupational status, and educational goals. The scale consists of 11 questions with two or three alternatives per question. Two of the questions from the scale are:

1. When you grow up, how famous or well-known would you like to be? and

2. When you grow up, do you want to go to college?

Students respond to the first question by choosing either "not very famous," "famous," or "very famous," and, of course, they choose either "yes" or "no" in response to the second question. This scale's alpha reliabilities were 0.67, 0.67, and 0.62 for the fourth-, fifth-, and eighth-grade samples, respectively.

State Anxiety Scale. The anxiety level of the students at the beginning of the 1976 school year was assessed by a ten-question short form of the State-Trait Anxiety Inventory developed by Spielberger (1973). The scale contains questions such as "How worried were you?" and "How nervous were you?" Students respond by selecting alternatives such as "very worried," "worried," or "not worried" and "very nervous," "nervous," or "not nervous." The scale's alpha reliabilities were 0.80 at the fourth-grade level, 0.81 at the fifth-grade level, and 0.80 at the eighth-grade level.

Anglo friendship measure. Three questions adapted from Coleman et al. (1966) measure the number of close Anglo friends a student has, along with the number of close Anglo friends and the number of Anglo classmates (s)he desires. Each question has five choices ranging from "none" to "all of them." For example, "If you could have anyone you wanted for your close friends, how many would be white?" Students respond by selecting either "none," "a few," "about half," "most of them," or "all of them." This measure had alpha reliabilities of 0.79, 0.80, and 0.91 for the fourth-, fifth-, and eighth-grade samples, respectively.

Background and Achievement Characteristics

Sex. This was simply the sex designation of the student from the fall-1975 or fall-1976 ITBS data tapes.

Bussing status. Students were classified as "bussed" if, beginning in the fall of 1976, they were eligible to be transported by the school district to and from their school for the purposes of racial integration. In terms of the sample, "bussed" students only attended the schools impacted by the Federal Court Order.

Students not eligible to be transported by the school district to and from their school for the purposes of racial integration were classified as "nonbussed." "Nonbussed" students attended all of the schools in the sample.

Achievement level. The Iowa Tests of Basic Skills (ITBS) composite grade-equivalent score is a general measure of intellectual performance in the five major areas of vocabulary, reading, language skills, work-study skills, and mathematics skills (Hieronymus and Lindquist, 1974). Because of its breadth as an indicator of academic performance, it was used as the measure of fourth-, fifth-, and eighth-grade student achievement. Specifically, the fall-1976 score was used at the fourth- and eighth-grade levels and the fall-1975 score was used at the fifth-grade level.

Family socioeconomic status (SES). An earlier study (Sheehan and Marcus, 1977) had produced scores on the following four social status dimensions for each student:

1. The extent of a family's social and cultural activities,

2. The extent of a family's material possessions,

3. A family's size, and

4. A family's use of a non-English language.

In addition, scores on a family "educational attainment - occupational status" dimension were available for the eighth-grade students.

Separate sets of SES indices were calculated at each grade level. In each case an SES index was formed by using the principal components method to analyze the matrix of Pearson product-moment correlations among the four (or five) social status dimensions and by calculating a score for each student on the single component which maximally discriminated among the students' families. These scores were standardized to a mean of zero and a standard deviation of one.

The indices maximally discriminated among the students' families in terms of the underlying social status dimensions. For example, fourth- and fifth-grade students with larger indices would come from smaller families who have more material possessions, who engage in more social and cultural activities, and who do not use a non-English language. Fourth- and fifth-grade students with smaller indices would come from larger families who have less material possessions, who engage in fewer social and cultural activities, and who may use a non-English language.

Class proportion Anglo. This was the proportion of Anglo students in each fourth- and fifth-grade classroom during the 1976-77 school year.

Class achievement level. For the fourth-grade classrooms the class achievement level was the class average of the fall-1976 ITBS composite grade-equivalent scores. For the fifth-grade classrooms it was the class average of the fall-1975 ITBS composite grade-equivalent scores.

Present school proportion Anglo. This was the proportion of Anglo students in the district school attended by the student during the 1976-77 school year. The proportion was calculated from the Enrollment Report by Grade of November 2, 1976.

Past school proportion Anglo. This was the proportion of Anglo students in the district school attended by the student during the 1975-76 school year. The proportion was calculated from the Health, Education, and Welfare Fall Civil Rights Survey of October, 1975 (Meier and Smedley, 1976).

Elementary school proportion Anglo. This was the proportion of Anglo students in the district elementary school attended by the eighth-grade student during the 1974-75 school year. Again the proportion was calculated from the Health, Education, and Welfare Fall Civil Rights Survey of October, 1975 (Meier and Smedley, 1976).

Analyses

The first step in the analyses was the computation of average item scores for each student on each of the eight attitude measures. Students who responded to less than 80% of the items on any one measure were omitted from the analyses. Students with missing background and achievement characteristics [sex, bussing status, achievement level, family SES, class proportion Anglo (fourth and fifth grades only), class achievement level (fourth and fifth grades only), present school proportion Anglo, past school proportion Anglo, and elementary school proportion Anglo (eighth grade only)] were also omitted from the analyses. (As previously reported, this resulted in decreases of 28.9%, 26.4%, and 47.8% in the fourth-, fifth-, and eighth-grade samples, respectively. However, in all three cases, the sex and ethnic breakdowns of the samples closely approximated those of the populations.) For each ethnicity (Anglo, black, and Mexican-American) within each grade level (fourth, fifth, and eighth), simple correlations were then computed between the attitude scores and the selected background and achievement characteristics. Multiple regression analyses were also performed for each ethnicity within each grade level. Because of the focus of the investigation, the attitude measures served as the dependent variables and the selected background and achievement characteristics were the independent variables.

Results and Discussion

Tables 4 to 6 present the simple correlations for each ethnic group within each of the three grade levels. An overview of these tables reveals that achievement level and the background variables of sex and family SES were most often significantly correlated with the attitude measures. In addition, sex and family SES were significantly correlated more frequently with Anglo attitudes than with black or Mexican-American attitudes.

Tables 7 to 9 show the results of the regression analysis for each ethnic group within each grade level. To facilitate interpretation, mention should be made of the differences between the correlation and regression analyses. The correlation between an independent variable and an attitudinal variable does not take into account the interrelationships among the other independent variables. Regression analysis, however, measures the effect the independent variable has on the attitudinal variable exclusive of the effects of the other independent variables. In other words, regression analysis portrays the unique contribution each independent variable makes in predicting each attitudinal variable.

An overview of Tables 7 to 9 reveals that achievement level was the single most important predictor of the attitude measures. Few other independent variables added significantly to the prediction of the student attitudes.

With this brief synopsis, we will present the results for each student attitude measure. The findings from both the correlation and regression analyses have been integrated, and whenever possible, they have been compared and contrasted with the findings of other studies.

School Attitude

Student sex predicted school attitude for all ethnicities and achievement level predicted black and Anglo school attitude. Specifically,

Table 4

Fourth Grade Correlations for Eight Measures of Anglo, Black, and Mexican-American Attitudes with Background and Achievement Characteristics[1]

Attitude Measures	Background and Achievement Characteristics							
	Sex	Achievement Level	Family SES	Bussing Status	Class Proportion Anglo	Class Achievement Level	Present School Proportion Anglo	Past School Proportion Anglo
School Attitude								
Anglo	22***	17***	6*	01	00	06*	01	-01
Black	08**	07*	-02	-04	01	01	01	-04
Mex-Am	16***	00	-05	00	00	-06	-04	02
Academic Self-Concept								
Anglo	12***	41***	26***	05	-05	17***	04	07**
Black	15***	25***	14***	06	-05	-01	-05	01
Mex-Am	14***	16***	05	-02	-02	-03	-06	-01
Prejudice								
Anglo	-12***	-19***	-7**	-04	-05	-02	-13***	-03
Black	-04	-21***	-14***	-04	-06	-02	-06	-03
Mex-Am	-01	-27***	-18***	-15***	-19***	-05	-08	-14***
Anglo Friendship								
Anglo	00	11***	09***	10***	06*	07**	13***	11***
Black	-04	-02	-02	-08**	10***	06	13***	-02
Mex-Am	05	03	10	09	19***	14***	11*	08
Responsibility for Academic Successes and Failures								
Anglo	12***	23***	08**	-01	04	12***	03	01
Black	14***	25***	06	03	-01	04	-04	02
Mex-Am	08	28***	05	10	06	01	-04	08
Aspirations								
Anglo	-19***	-03	05	02	-01	00	-06	-06*
Black	00	-03	04	03	-06	-05	-08**	06
Mex-Am	-10	-03	07	00	04	-01	00	-04
General Self-Concept								
Anglo	-03	14***	08***	-03	-05	03	00	04
Black	01	17***	09***	05	-06	-05	-05	01
Mex-Am	02	13**	07	01	04	-09	-01	05
State Anxiety								
Anglo	00	-11***	-02	-01	01	00	-04	-06*
Black	05	-12***	00	-05	06	02	05	-01
Mex-Am	00	-04	09	-09	-02	05	05	-13***

[1] Decimal points are omitted.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

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Table 5

Fifth Grade Correlations for Eight Measures of Anglo, Black, and Mexican-American Attitudes with Background and Achievement Characteristics[1]

Attitude Measures	Sex	Achievement Level	Family SES	Bussing Status	Class Proportion Anglo	Class Achieve-Level	Present School Proportion Anglo	Past School Proportion Anglo
School Attitude								
Anglo	17***	13***	07**	13***	04	07**	09***	00
Black	08**	04	-04	02	-03	05	-01	-03
Mex-Am	12*	07	-03	01	-02	05	-06	02
Academic Self-Concept								
Anglo	07**	45***	29***	13***	-07**	17***	-05	09***
Black	07*	24***	12***	-01	02	02	-01	-02
Mex-Am	12*	34***	16**	07	-07	07	06	01
Prejudice								
Anglo	-11***	-14***	-06*	-09***	-05	-07**	-12***	-02
Black	00	-24***	-08**	-01	-10***	-08**	-13***	-06
Mex-Am	-12*	-34***	-10	-06	-08	-10	-16***	-13**
Anglo Friendship								
Anglo	-05	11***	10***	01	-03	04	08**	15***
Black	-05	-03	02	-09**	10***	15***	19***	-02
Mex-Am	06	11*	15**	14**	18***	23***	31***	27***
Responsibility for Academic Successes and Failures								
Anglo	12***	20***	09***	03	00	07**	02	07**
Black	10***	22***	03	-04	-01	06	01	02
Mex-Am	18***	20***	07	07	07	13**	06	11*
Aspirations								
Anglo	-22***	-04	-02	01	-05	-02	-09***	-02
Black	-04	-02	02	-04	-04	-01	-01	-07*
Mex-Am	-15**	-14**	08	06	04	-02	01	-05
General Self-Concept								
Anglo	-04	20***	13***	07**	01	09***	-04	02
Black	02	18***	07*	-01	-04	02	-05	-04
Mex-Am	01	15**	10	02	01	08	-01	01
State Anxiety								
Anglo	03	-11***	-06*	-19***	-04	-03	-09***	02
Black	06	-07*	01	01	04	-03	05	06
Mex-Am	02	-09	-05	-06	-01	-05	00	-01

Background and Achievement Characteristics

[1] Decimal points are omitted.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

Table 6

Eighth Grade Correlations for Eight Measures of Anglo, Black, and Mexican-American Attitudes with Background and Achievement Characteristics

Attitude Measures	Background and Achievement Characteristics						
	Sex	Achievement Level	Family SES	Bussing Status	Present School Proportion Anglo	Past School Proportion Anglo	Elementar School Proportio Anglo
School Attitude							
Anglo	21***	24***	15***	05	02	00	04
Black	11**	11**	-03	-06	07	-04	-02
Mex-Am	06	04	07	08	-08	03	-07
Academic Self-Concept							
Anglo	06	45***	33***	07*	02	06	10***
Black	07	39***	15***	04	-02	09*	09*
Mex-Am	06	42***	21**	24***	-07	29***	05
Prejudice							
Anglo	-30***	-05	08**	-03	00	10***	03
Black	01	-25***	-10*	00	-07	-10*	-07
Mex-Am	-19**	-31***	-16*	-15	-07	-28***	-12
Anglo Friendship							
Anglo	-07*	23***	30***	00	10***	21***	21***
Black	-11**	03	06	-01	01	01	09*
Mex-Am	-09	28***	39***	22**	20**	45***	34***
Responsibility for Academic Successes and Failures							
Anglo	11***	21***	14***	-06	-04	02	05
Black	13**	26***	10*	-04	-06	05	10*
Mex-Am	13	30***	04	10	-06	18*	-08
Aspirations							
Anglo	-23***	22***	22***	02	-01	05	03
Black	02	09*	06	-06	01	07	03
Mex-Am	-29***	13	09	-04	-11	-02	-02
General Self-Concept							
Anglo	-10***	15***	12***	01	-04	-01	01
Black	10*	28***	11**	02	07	10*	09*
Mex-Am	-12	20**	23**	10	-16*	10	-04
State Anxiety							
Anglo	07*	-11***	-09**	-15***	-07*	00	-01
Black	-08	-15***	-05	02	-09*	-05	-02
Mex-Am	09	-01	-14	-13	-04	00	-03

[1] Decimal points are omitted.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

Table 7

Fourth Grade Standardized Regression Coefficients for Background and Achievement Characteristics on Eight Measures of Anglo, Black, and Mexican-American Attitudes[1]

Attitude Measures	Background and Achievement Characteristics							
	Sex	Achievement Level	Family SES	Bussing Status	Class Proportion Anglo	Class Achievement Level	Present School Proportion Anglo	Past School Proportion Anglo
School Attitude								
Anglo	20***	17***	00	-01	01	00	03	-04
Black	07*	08*	-03	-03	01	-02	-01	-04
Mex-Am	17**	01	-06	-01	06	-07	-08	05
Academic Self-Concept								
Anglo	08**	37***	11***	00	01	-03	01	-02
Black	11***	22***	08**	04	-02	-04	00	-06
Mex-Am	12*	16**	03	-05	02	-07	-09	02
Prejudice								
Anglo	-09***	-24***	00	01	-02	08**	-15***	03
Black	00	-20***	-10**	-06	-05	04	-08	05
Mex-Am	01	-23***	-08	-08	-17**	04	06	-11*
Anglo Friendship								
Anglo	-01	09**	03	08**	03	01	10**	08**
Black	-04	-02	01	-03	02	03	09*	00
Mex-Am	05	-06	07	08	16*	12*	-02	05
Responsibility for Academic Success and Failures								
Anglo	10***	23***	-01	-05	04	04	06	-04
Black	09**	24***	01	-01	02	-02	-05	-02
Mex-Am	07	29***	-03	04	10	-07	-12	10
Aspirations								
Anglo	-19***	-04	09**	02	02	-01	-07*	-07*
Black	01	-04	02	-05	-02	-02	-08	09*
Mex-Am	-10*	-03	09	-01	05	-02	-02	-05
General Self-Concept								
Anglo	-04	15***	03	-05	-05	-04	05	00
Black	-02	18***	05	02	-04	-06	01	-04
Mex-Am	01	16**	03	-03	08	-15**	-06	05
State Anxiety								
Anglo	02	-15***	05	00	02	06	-06	-05
Black	08*	-16***	04	-04	03	03	01	03
Mex-Am	-02	-07	12*	-05	-09	06	12	-16**

[1] Decimal points are omitted.
*Significanct at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

Table 8

Fifth Grade Standardized Regression Coefficients for Background and Achievement Characteristics on Eight Measures of Anglo, Black, and Mexican-American Attitudes[1]

Attitude Measures	Background and Achievement Characteristics							
	Sex	Achievement Level	Family SES	Bussing Status	Class Proportion Anglo	Class Achievement Level	Present School Proportion Anglo	Past School Proportion Anglo
School Attitude								
Anglo	15***	10**	03	09**	01	01	07*	-03
Black	08*	04	-05	05	-06	07	02	-05
Mex-Am	11*	06	-05	-01	-02	06	-10	06
Academic Self-Concept								
Anglo	05	39***	11***	11***	-04	-01	-02	00
Black	06	24***	07*	-02	04	-05	01	-06
Mex-Am	06	32***	08	04	-10	-01	06	-07
Prejudice								
Anglo	-10***	-15***	-02	-04	-01	00	-13***	03
Black	02	-25***	-03	-02	-03	01	-14***	01
Mex-Am	-07	-31***	00	-02	-02	02	-08	-02
Anglo Friendship								
Anglo	-05	09**	04	-01	-06	-02	10**	11***
Black	-06*	-04	05	-01	-04	14***	19***	-03
Mex-Am	07	-06	05	14**	-05	16**	24***	14*
Responsibility for Academic Success and Failures								
Anglo	11***	20***	01	00	00	-02	04	02
Black	09**	23***	-03	-08*	-05	02	02	04
Mex-Am	15**	13*	01	02	02	07	-03	06
Aspirations								
Anglo	-22***	-03	-03	05	-01	01	-10**	02
Black	-04	-02	03	-02	-01	06	-03	-06
Mex-Am	-12*	-15**	11*	07	03	00	07	-08
General Self-Concept								
Anglo	-05	17***	05	07*	03	00	-04	-02
Black	00	19***	03	-02	-02	00	-03	-06
Mex-Am	-01	14*	08	-03	01	04	-05	-02
State Anxiety								
Anglo	05	-12***	-03	-16***	-03	04	-06	04
Black	07*	-08*	02	00	03	-04	03	07
Mex-Am	04	-08	-02	-05	01	-03	02	01

[1] Decimal points are omitted.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

Table 9

Eighth Grade Standardized Regression Coefficients for Background and Achievement Characteristics on Eight-Measures of Anglo, Black, and Mexican-American Attitudes[1]

Attitude Measures	Background and Achievement Characteristics						
	Sex	Achievement Level	Family SES	Bussing Status	Present School Proportion	Past School Proportion	Elementary School Proportion Anglo
School Attitude							
Anglo	20***	20***	08	04	03	-02	-03
Black	09*	12*	-03	-05	06	-05	-01
Mex-Am	04	02	07	02	-05	01	-07
Academic Self-Concept							
Anglo	04	38***	15***	09**	03	02	-04
Black	02	38***	09	04	-01	01	-04
Mex-Am	-01	35***	06	06	-07	16	-08
Prejudice							
Anglo	-28***	-10**	11**	00	-01	10**	-01
Black	04	-24***	-05	01	-08	-04	01
Mex-Am	-14	-23**	-04	00	-05	-16	05
Anglo Friendship							
Anglo	-07*	09*	24***	00	11**	12***	06
Black	-12*	02	03	-04	02	-03	11*
Mex-Am	-17*	07	23**	11	09	25*	13
Responsibility for Academic Success and Failures							
Anglo	10**	18***	04	-07	02	-02	00
Black	09*	23***	04	-05	-05	-01	04
Mex-Am	08	30***	-04	-15	01	27*	-30**
Aspirations							
Anglo	-23***	17***	14***	06	00	04	-06
Black	00	07	04	-07	02	05	01
Mex-Am	-30***	15	09	-09	-10	04	-08
General Self-Concept							
Anglo	-11***	14***	05	04	-03	-01	-03
Black	08	26***	08	03	07	05	-07
Mex-Am	-15	16	20*	-03	-15	08	-11
State Anxiety							
Anglo	08*	-10*	-05	-17***	00	-01	02
Black	-07	-13**	-04	02	-09*	-02	02
Mex-Am	09	03	-13	-22*	-04	17	-11

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[1] Decimal points are omitted.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

females had a more positive school attitude than males, and high-achieving black and Anglo females had the most positive school attitude.

Academic Self-Concept

Achievement level was the most important predictor of academic self-concept. Quite simply, high-achieving students had a higher academic self-concept than low-achieving students. In addition, intermediate school females had a higher academic self-concept than intermediate school males, and higher SES blacks and Anglos had a higher academic self-concept than lower SES blacks and Anglos. Finally, there was a significant relationship between bussing status and academic self-concept for fifth- and eighth-grade Anglo students. The Anglos who were not bussed had a more positive academic self-concept than the Anglos who were bussed.

Racial Prejudice

For blacks and Mexican-Americans there were inverse relationships between achievement level, family SES, present school proportion Anglo, class proportion Anglo and student prejudice level. High-achieving blacks and Mexican-Americans from high SES families who were attending a school or class with a high proportion of Anglos were less prejudiced than low-achieving blacks and Mexican-Americans from low SES families who were attending a school or class with a low proportion of Anglos. In addition, Mexican-Americans were much less prejudiced when there were more Anglos in their past school, and Mexican-American females were less prejudiced than Mexican-American males.

For Anglos there were also inverse relationships between achievement level, present school proportion Anglo and student prejudice level. High achieving Anglos who were attending a school with a high proportion of Anglos were less prejudiced than low achieving Anglos who were attending a school with a low proportion of Anglos. In addition, female Anglo students were less prejudiced than male Anglo students, and at the fourth- and fifth-grade levels, Anglo students from high SES families were less prejudiced than Anglo students from low SES families.

However, eighth-grade Anglos were more prejudiced as family SES rose and past school proportion Anglo increased. Possibly older Anglo students, who have attended majority white or all-white schools, have had little opportunity to break down commonly held racial stereotypes. Middle school students are also noted for their close group membership ties, which could make acceptance of other racial groups a more difficult experience.

It is interesting to consider the relationships between present school proportion Anglo and racial prejudice in more detail. All three ethnicities were less prejudiced when they were attending schools with large Anglo populations. This suggests that, for Anglo students, the fewer minorities they have contact with, the lower their prejudice level. However, for minority students, the greater the number of Anglo students they have contact with, the lower their prejudice level. McWhirt (1967), studying North Carolina high school students in an integrated setting, also observed more prejudice in white students and less in black students. Previous research, though, tends to support Allport's (1954) thesis that prolonged contact among equals, in a formally sanctioned environment, will reduce prejudice levels. More time is needed to affirm the applicability of this thesis to district Anglo students.

Anglo Friendship Measure

At the fourth- and fifth-grade levels, students had higher scores on the Anglo friendship measure when the proportion of Anglo students in their present school increased. Fourth- and fifth-grade Anglo and Mexican-American students had higher scores when the proportion of Anglo students in their past school increased, and fourth- and fifth-grade blacks and Mexican-Americans had higher scores when their class achievement level was higher. Quite clearly, at these grade levels the primary factor for students forming and wanting to form Anglo friendships, and wanting Anglo classmates, was contact with Anglos. This contact occurred in the students' past schools, in their present schools, and in their classrooms.

Eighth-grade Anglo and Mexican-American students had higher scores on the Anglo friendship measure when they were from higher SES families, when their past and present schools contained more Anglos, and when they were males. Eighth-grade blacks had higher scores when they were males and when their elementary school contained more Anglos. Thus, at this grade level family SES and especially student sex played prominent roles along with Anglo contact in promoting Anglo friendships.

It is interesting to note that bussed fourth- and fifth-grade blacks had higher scores on the Anglo friendship measure, but bussed fourth-grade Anglos and fifth- and eighth-grade Mexican Americans had lower scores.

Responsibility for Academic Successes and Failures

Achievement level was the most important predictor of IAR scores. High achieving students assumed more responsibility for their academic successes and failures than did low achieving students. Sex was also a predictor of IAR scores, with females assuming more responsibility for their academic successes and failures than males. In addition, Mexican-American students assumed more responsibility for their academic successes and failures when their past school contained more Anglo students.

It is informative to compare these results to the findings of the Coleman (1966) report. Although Coleman used a very general, short, three-item measure of what he called "sense of environmental control", a comparison of findings with the IAR scale does not seem inappropriate. One of his most publicized findings was an increase in black and Anglo sense of environmental control as the school proportion Anglo increased. While this study found no such relationships for blacks and Anglos, it did, however, find the previously reported direct relationship between Mexican-American assumption of responsibility for academic successes and failures and past school proportion Anglo.

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A second departure from the Coleman (1966) findings, also noted by St. John (1970), was the strong positive influence of achievement level for all three ethnicities. Achievement level influenced responsibility for academic success and failures much more dramatically than present or past school proportion Anglo.

Aspirations

Anglo and Mexican-American males had higher aspiration levels than Anglo and Mexican-American females, and there was a slight tendency for both groups to have higher aspiration levels as family SES increased.

The aspirations of fourth- and fifth-grade Anglo and black students decreased as the present school proportion of Anglo students increased. This finding parallels that of other researchers (St. John, 1973; Armor, 1967), and may represent a realistic re-assessment in an integrated, and more competitive, environment. The higher black (and Anglo) aspirations in settings with few Anglo students may be unrealistic (Coleman, et al. 1966); they may camouflage insecurities (Gould, 1941); or they may be wishful thinking (Katz, 1967). In any case, a lowering of such aspiration levels would seem to be beneficial in preventing needless feelings of disappointment and failure.

Achievement level had a negligible, and perhaps even slightly negative, relationship with the aspirations of fourth- and fifth-grade students. However, at the eighth-grade level there was a complete reversal. The high achieving eighth-graders were those with the higher aspiration levels. Thus, as Wilson (1967) found, age and achievement level combine to temper aspirations and make them more realistic.

General Self-Concept

Achievement level was the most important predictor of general self-concept. High achieving students had a higher self-concept than low achieving students. Students from upper SES families also tended to have a higher self-concept than students from lower SES families. These direct relationships with both achievement level and SES parallel the findings of St. John (1970).

At the fourth- and fifth-grade levels no relationship was observed between sex and general self-concept. However, at the eighth-grade level Anglo and Mexican-American females tended to have a lower self-concept than Anglo and Mexican-American males; and black females tended to have a higher self-concept than black males.

State Anxiety

A significant, inverse relationship was observed between achievement level and beginning-of-school-year anxiety for black and Anglo students. Low achieving black and Anglo students had higher beginning-of-school-year anxiety levels than their high achieving counterparts. These results are not surprising, for anxiety and achievement have been shown to operate cyclically (Katz, 1967). High anxious students frequently perform poorly, producing more anxiety and tension, and more poor performances.

Bussing status affected beginning-of-school-year anxiety levels for fifth- and eighth-grade Anglos and for eighth-grade Mexican-Americans. These students were more anxious when they were bussed out of their neighborhoods.

Fourth- and fifth-grade black females were more anxious at the beginning of the school year than were fourth- and fifth-grade black males. Overall, though, blacks expressed little state anxiety. This is quite different from a survey such as that of Chesler and Segal (1967), who reported that 25% of the black students expected to encounter physical harm or injury when attending an integrated school.

Conclusions

The antecedent variables that were considered in this study fall into two groups. First, there are the less-manipulable variables like sex, achievement level, and family SES. As a group, these variables are less readily amenable to manipulations by desegregation plans or court orders. Second, there are the more-manipulable variables like bussing status, class proportion Anglo, class achievement level, and present, past, and elementary school proportion Anglo. These variables are more readily amenable to manipulation by desegregation plans.

When the antecedent variables are classified in this way, it becomes apparent that the less-manipulable variables had the greatest impact on student attitudes. More specifically, achievement level was the single most important predictor of student attitudes; sex and family SES were moderately important predictors.

The more-manipulable variables had a lesser impact on student attitudes. Bussing status, class proportion Anglo, class achievement level, and present, past, and elementary school proportion Anglo were only slightly important predictors of student attitudes. However, when these variables indicated increased contact with Anglos, black and Mexican-American attitudes were favorably affected. For example, blacks and Mexican-Americans had lower prejudice levels and more Anglo friends when they had contact with more Anglo students; and blacks had more realistic aspiration levels as the proportion of Anglo students in their present school increased.

The more-manipulable variables had a less favorable impact on Anglo attitudes. For example, Anglo students had higher prejudice levels when they had contact with more black and Mexican-American students.

Thus, the variables that are more readily manipulated by desegregation plans (e.g., present school proportion Anglo) did not have the impact on student attitudes that less-manipulable variables like achievement level had. However, when the more-manipulable variables were altered to bring about racial mixing, the impact that they did have tended to be more favorable for minorities than for Anglos.

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Additional Information:

IR77-024-3-1 Desegregation Report No. 2: Relationships Between Student Attitudes and Selected Background and Achievement Characteristics, 1977, Daniel S. Sheehan, Mary M. Marcus.

IR77-024-3-1 Desegregation Report No. 1: The Effects of Bussing Status and Student Ethnicity on Achievement Test Scores, 1977, Daniel S. Sheehan, Mary M. Marcus.

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76-837 Eight Year Enrollment Trends 1968-59 through 1975-76, 1976, James A. Meier, Rande H. Smedley.

76-840 Effects of Induced Desegregation, 1976, James P. Papay.

75-550 Longitudinal Effects of Desegregation 1972-1975, 1975, James. A. Meier.

74-291 Evaluation of the Title III Dallas Junior High School Career Education Project: 1973-1974, 1974, Michael R. Vitale.

74-282

Abstract

Results of the System-wide Survey of Drug Usage, 1973-74

Evaluator: James Buchanan

Purpose of the Evaluation: The purpose of the system-wide survey of drug usage as reported by students of the Dallas Independent School District (DISD) is to provide information concerning the extent of drug usage within DISD and to observe trends in drug usage. In addition, an attempt is made to identify areas of DISD with respect to the types of drug usage reported.

Sample: A sample of DISD was taken using a 5% proportional stratified random sampling procedure similar to the method used in earlier drug surveys. The sample was drawn across five geographical areas used in previous surveys in order to maintain comparability of results. The instrument employed for this survey was a shortened form of the Drug Survey Questionnaire (DSQ) employed last year.

Evaluation Design: A drug user, as in previous surveys, was defined as a person who (a) used one of the drugs in the DSQ (excluding alcohol and tobacco) at least twice and (b) used that drug within the week preceding the survey.

These data were tabulated with respect to area, sex, ethnicity, and academic performance.

Evaluation Results: The major results of this study are as follows:

1. Reported drug usage increased between grades eight and nine.
2. Reported drug usage tended to drop in grade twelve except for the South Dallas and Kleberg-Seagoville areas.
3. The trend was a steady but continuous increase in the South Dallas-Kleberg-Seagoville area.
4. In grades five through eight, reported drug usage was generally decreasing, although there are instances of an increase.
5. Excluding alcohol and cigarettes, the data reflected the largest usage increase for marijuana relative to the other drugs.
6. Reported usage in the Inner City and South Dallas areas was higher than in other areas, except North Dallas, in grades eight through ten.

7. No strong evidence of a relationship between ethnicity and reported drug usage is apparent.

8. Males record a higher tendency to report drug usage than do females.

9. There seems to be a strong inverse relationship between drug usage and academic success.

10. The following table displays drug usage trends during the past five years:

Percentage of Students Classified
as Drug Users by Grade and
Area Over a Five Year Period*

Survey	Grade							
	12	11	10	9	8	7	6	5
				Far North Dallas				
B_1 10/70	19.3	26.9	18.5	21.9	12.4	6.3	4.7	3.3
B_2 7/71	11.1	21.5	19.4	29.6	18.2	13.5	7.7	.9
C 5/71	36.3	19.8	25.3	13.4	16.8	0.0	3.0	3.7
D 5/72	16.7	26.6	17.8	17.0	21.6	13.4	6.5	8.1
E 4/73	34.3	34.2	29.2	32.2	28.3	14.9	7.2	3.2
F 4/74	28.6	30.0	46.2	29.7	28.4	8.2	6.7	3.1
				Southwest Oak Cliff				
B_1 10/70	19.2	17.0	10.1	24.1	10.1	14.6	3.7	17.2
B_2 5/71	20.8	10.8	9.5	21.2	11.9	5.7	17.0	9.6
C 5/71	22.5	22.9	20.9	27.1	10.2	10.7	10.1	5.3
D 5/72	12.5	26.8	17.1	26.2	14.5	14.8	0.0	6.8
E 4/73	35.7	26.6	22.3	31.3	19.6	11.8	7.6	3.1
F 4/74	28.1	31.4	26.7	29.4	15.9	8.0	10.6	1.2
				East Dallas				
B_1 10/70	15.4	7.8	17.6	10.3	4.3	4.1	2.0	3.0
B_2 5/71	18.2	17.2	15.4	19.5	12.8	12.1	3.5	2.2
C 5/71	10.6	13.0	23.7	13.1	14.6	9.1	6.2	2.2
D 5/72	22.0	19.2	19.1	20.7	13.9	5.7	10.8	6.5
E 4/73	22.4	25.9	22.8	24.9	18.2	10.5	3.6	3.1
F 4/74	24.0	22.5	24.0	35.7	14.4	7.4	5.7	3.6
				South Dallas - Kleberg - Seagoville				
B_1 10/70	14.0	7.8	14.8	8.8	5.6	0.0	3.9	13.3
B_2 5/71	11.3	9.7	20.0	19.5	14.8	9.5	3.2	1.8
C 5/71	23.2	7.5	12.1	9.5	5.4	11.1	0.0	7.6
D 5/72	18.0	31.3	18.3	25.4	19.3	10.8	5.9	4.5
E 4/73	24.6	23.3	25.6	17.6	6.9	10.1	5.8	4.2
F 4/74	39.6	37.3	24.1	17.5	14.3	7.3	5.6	5.1

					Inner City				
B_1	10.70	14.7	10.2	8.7	9.4	7.0	13.4	4.7	8.2
B_2	5/71	5.7	8.4	12.7	17.9	8.6	6.3	3.4	2.6
C	5/71	2.1	8.5	11.1	19.4	11.1	0.0	3.7	5.3
D	5/72	5.3	28.6	12.5	5.9	12.5	22.7	7.4	3.7
E	4/73	25.0	20.8	25.5	21.9	10.8	11.1	3.7	10.7
F	4/74	36.7	37.9	30.6	25.9	17.5	10.0	9.8	0.0

*Use of alcohol and tobacco was excluded in computing these percentages.

Additional Information:

74-282	System-Wide Drug Usage, 1974, James Buchanan, 65 pages.
74-271	Report for the Evaluation of the Drug Abuse Education Project 1973-74, 1974, C. LaVor Lym, 73 pages.
74-231	Design for the Evaluation of the Drug Abuse Education Project, 1974, C. LaVor Lym, 52 pages.
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73-132	System-Wide Drug Survey Results, 1973, Clinton C. Schuhmacher, 32 pages.
72-95	Evaluation Design for the Drug Education Program 1972-73, 1972, C. LaVor Lym, 39 pages.
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72-56	Design for the Study of Drug Usage Among Dallas Public School Children, 1972, G. Raleigh Pegram, 16 pages.
71-7	Drug Usage Among DISD Students/Concomitants, Trends, and Effects of Intervention, 1971, William J. Webster, Clinton C. Schuhmacher, 136 pages.
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Abstract

Dallas County Community College Study

Principal Evaluator: Wayne R. Applebaum

Introduction:

The Dallas County Community College District (DCCCD) is made up of four Community Colleges (Eastfield, El Centro, Mountain View, and Richland) serving Dallas County. In excess of 39,000 students who graduated from high school in the last five years are attending or have attended these schools. Enrollment figures indicate that over one-third of the students who were enrolled in the twelfth grade in the Dallas Independent School District (DISD) during the last five years have attended credit-bearing courses in the DCCCD.

The purpose of this study was to consider the demography and college achievements of both DISD and non-DISD students.

Methodology

The source data for this document was provided by the DCCCD. This information is routinely collected by the DCCCD and was resident on their data base. The data was current as of June, 1977. Students whose records were included in this compilation graduated from high school from 1972 through 1976.

Results and Discussion

Demography: Table 1 indicates demographic characteristics of students broken down by high school. It should be noted that 39.14% of the students in the DCCCD came from the DISD.

Table 2 shows the ethnic percentages of the entire DCCCD population coming from DISD and non-DISD high schools. The population of the DCCCD is 18% minority (black and Mexican-American) students. Of this 18%, two-thirds came from the DISD. Table 3 gives the ethnic characteristics of DISD and non-DISD community college students.

Table 4 presents the ethnic makeup of the four community colleges. El Centro College has the highest percentage of both black and Mexican-American students. Richland College has the lowest percentage of blacks and Mexican-Americans.

Table 1

Demographic Characteristics of DCCCD Students by High School

	Number of Students				
High School	Male	Female	Anglo	Black	Mex-Am
Bryan Adams	1006	998	1863	83	58
W. H. Adamson	164	168	163	126	43
D. W. Carter	491	577	658	378	32
Hillcrest	548	684	1127	95	10
Thomas Jefferson	524	529	842	127	84
Justin Kimball	533	520	920	80	53
Lincoln	161	316	17	459	1
James Madison	7	4	3	8	0
North Dallas	144	248	116	106	170
L. G. Pinkston	137	222	9	296	54
F. D. Roosevelt	210	342	17	531	4
W. W. Samuell	392	402	697	79	18
Seagoville	68	56	117	2	5
Skyline	838	983	1347	375	99
S. Oak Cliff	340	615	35	914	6
H. G. Spruce	276	329	401	163	41
Sunset	334	375	544	37	128
W. T. White	656	702	1264	83	11
W. W. Wilson	283	328	503	41	67
Total DISD	7112	8398	10643	3983	884
Total Non-DISD	11736	12380	21863	1671	582
Grand Total	18848	20778	32506	5654	1466

Table 2

Ethnic Percentages of the Total DCCCD from DISD and Non-DISD Sources

	Anglo	Black	Mex-Am
DISD	27	10	2
Non-DISD	55	4.5	1.5
Total	82	14.5	3.5

Table 5 shows the percentages of DISD and non-DISD students by college. Richland had the lowest percentage of DISD students (25%). El Centro was the only college with more than 50% of the students coming from the DISD.

Academic Achievement: Table 6 presents the mean grade point average (GPA) and mean number of hours earned for each DISD high school and non-DISD students. On the average, non-DISD students had a slightly higher GPA than DISD students. DISD students had earned a greater number of credit hours than non-DISD students. In each case the differences were not great enough to be considered as having any practical significance.

Table 7 shows the mean hours earned, mean hours attempted, and mean GPA by ethnicity. Black students on the average earn three hours less than Anglo and Mexican-American students. The GPA, for black students, was one-half point lower than Anglo students. Mexican-American students attempt the greatest number of hours; however, Anglo students have the highest number of hours earned.

The appendix which follows presents additional tables which may be of interest to the reader.

Table 3

Percentage Ethnicity of DISD and Non-DISD Populations in the DCCCD

	Anglo	Black	Mex-Am
DISD	69	26	5
Non-DISD	91	7	2

Table 4

Ethnicity of Enrollment by College

College	% Anglo	% Black	% Mex-Am	Total Number of Students
Eastfield	92	4	3	9323
El Centro	35	56	9	6025
Mountain View	77	19	4	7796
Richland	96	2	2	16482

Table 5

Percentage of DISD and Non-DISD Students by College

College	% DISD	% Non-DISD
Eastfield	47	53
El Centro	59	41
Mountain View	42	58
Richland	25	75

Table 6

Mean Grade Point Average (GPA) and Hours Earned by High School

High School	GPA	Hours Earned
Bryan Adams	3.04	21.5
W. H. Adamson	2.72	18.4
D. W. Carter	2.75	17.0
Hillcrest	2.86	15.3
Thomas Jefferson	2.83	19.2
Justin Kimball	2.91	19.3
Lincoln	2.47	14.3
James Madison	2.69	11.9
North Dallas	2.68	17.3
L. G. Pinkston	2.49	13.6
F. D. Roosevelt	2.46	12.7
W. W. Samuell	2.95	19.2
Seagoville	2.91	14.6
Skyline	2.99	21.3
S. Oak Cliff	2.40	13.9
H. Grady Spruce	2.79	15.7
Sunset	2.87	17.9
W. T. White	2.82	15.3
Woodrow Wilson	2.88	17.6
DISD Mean	2.83	17.8
Non-DISD Total Mean	2.98	16.4
DCCCD Mean	2.92	16.9

Table 7

Mean Hours Attempted, Earned and GPA by Ethnicity

	Mean Hours Attempted	Mean Hours Earned	GPA
Anglo	17.98	17.35	2.99
Black	15.74	14.21	2.48
Mexican-American	18.36	17.30	2.79

Additional Information:

IR77-124-9-5 Dallas County Community College Study, 1977, Wayne R. Applebaum.

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Appendix

Year of High School Graduation by Mean Hours Earned and GPA

Year	Hours Earned	GPA
1972	17.7	2.97
1973	19.6	2.96
1974	19.1	2.91
1975	16.2	2.88
1976	10.6	2.86

Percentage of DISD Twelfth Grade Enrollment that Attended the DCCCD

Year	Enrollment	% DCCCD
1972	9321	22.4
1973	9089	36.5
1974	8964	43.0
1975	8235	43.2
1976	8199	32.8
Total	43808	35.4

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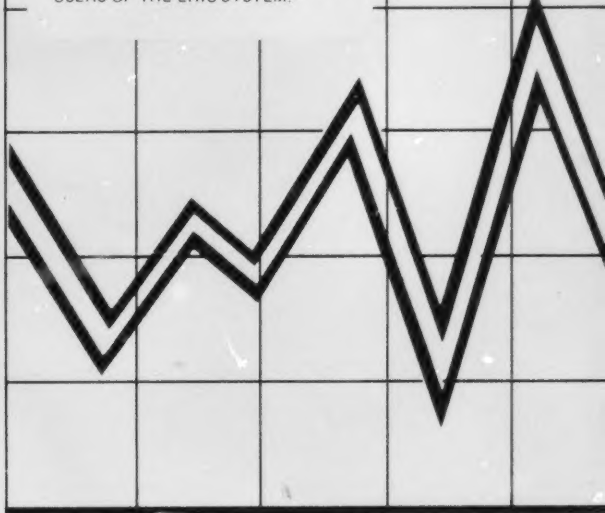
ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77

VOLUME III — TESTING APPLICATIONS, AD HOC RESEARCH, CONTEXT AND INPUT EVALUATION



DEPARTMENT OF RESEARCH, EVALUATION AND INFORMATION SYSTEMS

dallas independent school district

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DR. NOLAN ESTES, *General Superintendent*

Dallas Independent School District
Dr. Nolan Estes, General Superintendent

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Mr. Rogers L. Barton
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Department of Research, Evaluation,
and Information Systems
Dr. William J. Webster
Deputy Associate Superintendent

ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77
VOLUME III
TESTING APPLICATIONS, AD HOC RESEARCH, CONTEXT AND INPUT EVALUATION

The majority of reports abstracted in this document were completed by the District's Research and Evaluation Branch of the Department of Research, Evaluation, and Information Systems during the 1976-77 school year and were presented through the Educational Program and Evaluation Committee to the Board of Education. Several studies were completed in previous years; but, because they affect significant decisions, they too are abstracted in this document.

Approved report of the Department of Research,
Evaluation, and Information Systems

William J. Webster
William J. Webster
Deputy Associate Superintendent
Research, Evaluation, and Information Systems

November, 1977

Dallas, Texas

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IR77-017-3-5

Abstract

Test Administration Practices Study, Fall 1976

Principal Evaluator: Wayne R. Applebaum

The Iowa Test of Educational Development is administered every year to ninth and twelfth graders in the Dallas Independent School District. The Iowa Test of Basic Skills is administered every year to eighth graders. The results of these tests are used for the purpose of classifying children as being eligible for programs in compensatory education. They are used to determine a child's progress during the school year. Their use extends to determining the effectiveness of special programs under study by the District. In addition, they are used to compare the quality of education in the Dallas Independent School District with other cities throughout the nation. In short, these tests are used for both large scale administrative decisions as well as individual decisions. Therefore, these tests should be regarded as having a great deal of importance.

In 1973 a study of test administration practices was undertaken by the Department of Research and Evaluation (Campbell and Olson, 1973). This study revealed widespread violations of proper testing practices. Since that time the Division of System-wide Testing has undertaken a program to educate principals and counselors in the area of proper test administrative practices. In addition to the creation of a number of workshops, a test procedure manual was compiled by System-wide Testing and a copy was provided to principals of every school. Therefore, it may be concluded that principals and counselors were informed of proper test administrative practices.

As these tests are norm-referenced, it is essential to the interpretability of their scores that regardless of location, they be administered in the same manner. Any deviation from standard testing practices casts doubts as to the validity of any comparison of scores obtained with those of the norming group. In addition, since the administrative practices required by these tests are generally the most nearly ideal for the student, one might expect that scores would be lowered as a result of deviations from these practices.

It is the purpose of this study to ascertain the quality of testing practices in the DISD. The important use of these test scores demands that deviations from proper practices not be regarded lightly.

Methodology:

Sources of Data: Thirty-five members of the professional staff of the Department of Research and Evaluation observed 176 testing sessions in middle schools and high schools. An attempt was made to observe eigth-grade sessions at each of the District's middle schools and ninth- and twelfth-grade sessions in each of the District's high schools. This goal was met with the exception of sessions in the twelfth grade of North Dallas High School and the eigth grade of T W Browne middle school In both these cases scheduling conflicts eliminated the possibility of observing testing sessions in those schools.

It should be noted that these results are based on testing sessions sampled from middle and high schools. As a result of the limited scope of the sample generalizations beyond the high schools and middle schools (to the elementary schools) may be unwarranted.

Procedures: The observers were provided with a test observation checklist. This checklist was similar to the checklist used in the Campbell and Olson (1973) study The checklist was based on the administrative practices set forth in the Iowa Test of Educational Development Manual.

Prior to entering the schools the observers were instructed as to the use of the checklist. They were also instructed as to the proper manner of entering the school and the testing room so as to cause the minimum amount of disruption. The principals of the schools involved in the study received letters informing them of the study at least one week before the visitation occurred.

Results and Discussion: The results indicate that although most of the procedures were followed in most of the sessions there were still some areas where improvement is necessary. Table 1 summarizes the percentage of sessions where incorrect procedures were observed.

It is of note that teacher violations such as prompting, providing students with additional information, and not reading instructions verbatim all had a relatively low incidence. This shows a great improvement in the teachers' behavior since the 1973 study, which had indicated that a large percentage of teachers were guilty of such violations.

Although Table 1 indicated that violations occurred in almost every area, only areas where violations occurred in ten percent or more of the sessions will be discussed. It is felt that such a percent indicates a serious system-wide violation of procedure. These areas and the relationships between them will be discussed in greater detail

TABLE 1

Violations of Procedure

		Percent of Occurrence			
		Grade			
	Violation of Procedure	8	9	12	Total
1.	Incorrect type of room (non-classroom)	33.9	50	49	44.3
2.	No "Testing Do Not Enter Sign" on door	87.5	75	71.7	76.4
3.	Insufficient materials	0	1.7	0	.6
4.	Teacher disorganized	3.4	3.5	2.3	3.6
5.	Teacher does not have a relaxed demeanor	0	1.7	10.2	3.4
6.	Teacher does not read instructions verbatim	3.5	3.4	6.7	4.1
7.	Teacher not familiar with the test instructions	1.7	0	4.3	2.[illegible]
8.	Students are not instructed on how to record or change their answers	35.6	9.1	16.7	18.6
9.	The instructor could not be heard from the back of the room	1.8	5	0	2.3
10.	Instructor provides information in addition to oral and/or written instructions when answering questions	0	4.4	6.9	3.6
11.	Proctors answer questions	84.2	93.1	57.7	77.6
12.	Evidence of prompting by the examiner or proctor	0	0	0	0
13.	Evidence of the proctor or examiner giving help of any kind	1.7	0	0	.6
14.	External disruption (continuous)	22	11.7	13	16.8
15.	Internal disruption (continuous)	16.9	28.3	21.3	23.6
16.	Sudden disruption in testing situation	25.9	35.6	45.7	36.3
17.	Evidence of cheating or collaboration	33.9	33.3	14.9	28.2
18.	Seating arrangement to discourage cheating	55.9	48.3	40.9	49.1
19.	Time intervals not adhered to	0	6.9	6.3	4.1

No "TESTING DO NOT ENTER" Sign: Seventy-six percent of the sessions observed did not have any sign on the door indicating that testing was in progress. It would seem that such a minor accommodation could be made for the benefit of students taking the test.

Students Are not Instructed how to Mark or Change Answers: The answer sheets used in the administration of the ITED and ITBS are machine scored. As such, students must be able to fill out the machine scorable answer sheets correctly. An answer sheet which is filled out incorrectly can result in lost, delayed, or inaccurate scores. An answer which is changed but not erased completely will result in the student's receiving a score of zero for that item. Therefore it can be recognized that informing the student of the correct way of recording and changing his answer is important. In 18.6% of the sessions observed, students were not so informed. It is obvious that such a situation can and should be remedied.

Proctors Answer Questions: In 77.6 percent of the sessions, proctors answered questions about the test instructions. According to procedures outlined in the test manual, only the examiner is supposed to answer such questions. However, given the fact that since there was little evidence of prompting or additional help given by examiners or proctors, this would not seem to be a significant violation.

Disruptions: Internal, External, and Sudden: Twenty-three percent of the sessions observed had continuous internal disruptions. As was stated previously, such disruptions were more prevalent in lunchroom settings than any other. Internal disruptions noted most often were excessive noise, heat, or cold. Although tests must be given under conditions that exist in the school and some disturbances cannot be corrected, the choice of a setting that affords the least possible chance of disruption would seem to be advisable. The results in Table 2 indicate that classrooms had the smallest proportion of internal disruptions. A chi-square test indicated that the relationship was significant at the .0001 level.

More than 16% of the sessions observed experienced some sort of external disruption. External disruption was caused by such things as noise in the hall outside the testing room, music from classes being conducted nearby and furniture being moved outside the testing room. Once again, it is felt that most of these disruptions could be curtailed or eliminated if testing were given priority.

Similarly, sudden disruptions, reported in 36% of the sessions, could also be decreased if efforts were taken to curtail them. Sudden disruptions were reportedly caused by students or teachers entering the testing room, noise from people congregating outside the testing room, and noise from people changing classes.

Incorrect Type of Room: Instructions distrubuted by system-wide testing indicated that testing should take place in a classroom. Testing was not supposed to take place in groups larger than a single class (generally less than 30 students). One of the reasons for this was that it was felt classroom testing would be less psychologically disruptive to the student. In addition, it was felt that classroom conditions were most conducive to test taking in terms of comfort and the amount of disruptions that were likely to occur.

In 44.3 percent of the sessions observed testing did not occur in a classroom setting. Observers indicated that sessions were held in auditoriums, lunchrooms, and large study halls. In some cases students had to work on lapboards, and/or in areas that had poor lighting. This was especially true of auditorium-type testing. Table 2 shows a cross tabulation between type of room and internal disruptions (defined as excessive levels of noise, heat, cold, etc.). A chi-square test was significant at the .0001 level indicating a relationship between the two variables. Examination of the table indicates that internal disruptions occurred with the greatest relative frequency in lunchroom settings. Internal disruptions had the lowest relative frequency of occurrence in a classroom setting.

TABLE 2

Number of Internal Disruptions by Type of Room

	Internal Disruption	
Type of Room	Yes	No
Auditorium	5	18
Classroom	16	80
Lunchroom	11	4
Study Hall or Other	9	31

CHI SQUARE = 23.23

SIGNIFICANCE LEVEL = .0001

Campus level testing officials have expressed the opinion that tests should be given in large group settings because this procedure is less disruptive to the school as a whole. Although this is true, there seems to be evidence of misplaced priorities. The administration of standardized tests is an important event and should be regarded as such. It should take priority over normal school operations.

Evidence of Cheating and Seating Arrangement: In 28.2% of the sessions observers indicated that there was evidence of cheating or collaboration among the students. Such a high figure tends to cast doubts as to the validity of test scores.

Table 3 is a contingency table between cheating and seating arrangements which discourage cheating. A chi—square test significant at the .0001 level indicates that there is a relationship between those two variables. Cheating was observed to occur in 13.8% of sessions where seating was said to discourage cheating. In sessions where seating did not discourage cheating, cheating was observed to occur 42.9% of the time. It would seem that although preventative seating arrangements may not eliminate cheating, they may curtail it.

TABLE 3

Cheating versus Seating Arrangement

	Cheating	
Seating Discourages Cheating	Yes	No
Yes	12	75
No	36	48

CHI SQU[illegible] = 16.47

SIGNI[illegible]NCE LEVEL = .0001

Conclusions: There appear to be problems associated with the test administrative practices in the schools of the DISD These problems apparently stem from the lack of concern for proper testing practices on the part of school principals and counselors. This should not be taken to mean that all principals and counselors are at fault. In many cases schools were observed to have near perfect testing practices. These schools are to be congratulated However, there are still too many schools exhibiting violations in testing practices It cannot be said that these violations are being made out of ignorance since every effort has been made on the part of System—wide Testing to inform principals and counselors of proper testing practices. Therefore, they must be regarded as being caused by negligence or misplaced priorities. These test administrations are not unimportant events to be taken lightly. They affect both decisions made about individual students and administrative policies. Every effort must be made to insure validity of this information since inaccuracies can have severe negative consequences.

Additional Information:

IR77-017-9-5 Test Administration Practices Survey Fall, 1976, 1976, Wayne R. Applebaum.

73-207 A Study of DISD's Standardized Test Practices, 1973, W. B. Campbell, George H. Olson.

73-183 Test Administration Practices in the DISD, 1973, George H. Olson, 19 pages.

References

Campbell, W. A. and Olson, G. H. A Study of DISD'S Standardized Test Practices. Research Report No. 73-207, 1973.

Abstract

Technical Study of the ITBS

Evaluators: George H. Olson and Stephanie Bennett

Purpose of the Study: This study is important for two reasons. First, it extended the time of investigation which had previously examined various technical aspects of District-used standardized test. Second, it reported valuable evaluative data concerning the Dallas Independent School District (DISD) most recently adopted standardized test battery. In addition, this report also presented a description of the ITBS battery along with the publisher's suggestions for improving student performance on the subtests.

Sample: The data for this study were the item responses of DISD students in grades 4-8 who completed the ITBS during the fall, 1974, system-wide testing program. Twenty-five percent of the completed test data was randomly selected for data analysis.

Data Analysis: The ITBS answer sheets were scored and the data placed on magnetic tape by the Test Scoring Service of Westinghouse Learning Corporation. When these data were returned to the District, they were edited, reformatted, and processed by an item-analysis computer program. The analysis included computing means, standard deviations, and reliability coefficients for each sex-ethnic subpopulation of respondents within each grade level tested.

Results: Of primary importance to this study was the computation of reliability coefficients for each of the eleven major subtests of the ITBS. Although the reliability coefficients varied somewhat among ethnic subpopulations, they tended, always, to be moderate-to-high for all subtests. The District-wide coefficients of reliability are given in the following table:

KR20 Internal Consistency Reliability
Coefficients for Subtests of the ITBS

	Subtest										
Level	V	R	L1	L2	L3	L4	W1	W2	W3	M1	M2
9	.86	.87	.89	.83	.76	.83	.73	.73	.85	.82	.80
10	.86	.89	.91	.78	.78	.83	.74	.64	.82	.78	.76
11	.90	.91	.91	.78	.80	.81	.80	.67	.89	.81	.77
12	.89	.90	.91	.84	.82	.84	.77	.69	.80	.85	.77
13	.88	.91	.91	.84	.80	.78	.76	.72	.86	.87	.76
14	.90	.92	.92	.85	.82	.77	.82	.80	.90	.86	.76

V: Vocabulary

R: Reading Comprehension

L1: Language Arts -- Spelling

L2: Language Arts -- Capitalization

L3: Language Arts -- Punctuation

L4: Language Arts -- Usage

W1: Work-Study -- Map Reading

W2: Work-Study -- Reading Graphs and Tables

W3: Work-Study -- Knowledge and Use of Reference Materials

M1: Mathematics -- Concepts

M2: Mathematics -- Problem Solving

Additional Information:

75-548 Technical Study of the ITBS, 1975, George H. Olson, Stephanie Bennett, 134 pages.

74-233 An Investigation of School Standardized Achievement Tests, 1974, Harold W. Lang, 81 pages.

73-207 A Study of the DISD's Standardized Test Administration Practices, 1973, Wendy B. Campbell, George H. Olson, 35 pages.

73-184 Test Use and Interpretation in the DISD, 1973, George H. Olson, 34 pages.

73-183 Test Administration Practices in the DISD, 1973, George H. Olson, 19 pages.

73-182 Technical Characteristics of Standardized Tests Used in the DISD, 1973, George H. Olson, 40 pages.

73-176 Group Test Reports Used in the Dallas Independent School District, 1973, Harold W. Lang, 13 pages.

72-119 Selected Characteristics of Standardized Tests Used in the DISD, 1973, George H. Olson, 129 pages.

72-54 Selected Characteristics of Standardized Tests Used in the Dallas Independent School District, 1972, George H. Olson, 23 pages.

73-182

Abstract

Technical Characteristics of the ITED

Evaluator: George H. Olson

Purpose of the Evaluation: In conformance with previous studies which examined technical characteristics of standardized tests used in the Dallas Independent School District (DISD), this study examined the reliability of the *Iowa Tests of Educational Development* (ITED). Although the publishers of the ITED had reported favorable data for the battery, their data were obtained from national samples of examinees. Since DISD students might differ in important ways from students in the national samples, it was deemed important to study the reliability of the ITED when administered specifically to DISD students.

Sample: The data for this study were the item responses of ninth-, tenth-, and eleventh-grade students obtained from the fall 1973, system-wide administration of the ITED. The data were "edited" to include only the item responses of those examinees who attempted all subtests in the battery.

Evaluation Design: A computer program, developed specifically for this purpose, computed the mean, standard deviation, reliability, standard error of measurement, and subtest-total test correlations for each of the three grade levels, as well as for each sex-ethnic group within each grade level. Summary tables were prepared for each subtest. Reliability statistics were compared to published norms.

Results of the Evaluation: Generally, the realiability statistics were consistent across all three grade levels. No appreciable differences between sex groups were noted. On the whole, however, the subtests were found to be less reliable within Negro, Mexican-American, and American Indian subgroups at each grade level. Ethnicity did not appear to interact with sex, grade level, or subtest.

As for the subtests themselves, the tests in the reading and language arts sections of the battery were found to be highly reliable. The mathematics and social studies subtests also proved to be highly reliable, though to a lesser extent. The science subtest was appreciably less reliable, apparently because of the extremely low reliability of the science background subtest. The use of sources subtest was found to be essentially unreliable for use with DISD students. The total group reliabilities for various subtests are summarized by grade level in the following table.

Reliabilities of ITED Subtests for DISD Students

	Grade			
Subtest	Nine	Ten	Eleven	Average
Reading Comprehension	.86	.90	.91	.89
Reading Vocabulary	.87	.92	.93	.91
Reading Total	.92	.95	.96	.94
Language Arts Usage	.81	.86	.88	.85
Spelling	.87	.90	.91	.89
Language Arts Total	.90	.93	.94	.92
Mathematics	.74	.83	.88	.82
Social Studies Total	.75	.82	.85	.81
Science Total	.66	.72	.76	.71
Science Background	.20	.17	.20	.19
Use of Sources	.14	.09	.12	.12

Additional Information:

74-276 Technical Characteristics of the ITED, 1974, George H. Olson, 87 pages.

73-207 A Study of the DISD's Standardized Test Administration Practices, 1973, Wendy B. Campbell, George H. Olson, 35 pages.

73-184 Test Use and Interpretation in the Dallas Independent School District, 1973, George H. Olson, 56 pages.

73-183 Test Administration Practices in the Dallas Independent School District, 1973, George H. Olson, 19 pages.

73-182 Technical Characteristics of Standardized Tests Used in the Dallas Independent School District, 1973, George H. Olson, 40 pages.

Abstract

ITBS - CTBS - CAT Comparability Study

Evaluator: George H. Olson

In the spring of 1974, the D.I.S.D. Board of Education approved a change in the District's System-wide Testing Program which called for replacing the California Achievement Tests (CAT) and the Comprehensive Tests of Basic Skills (CTBS) with appropriate levels of the Iowa Tests of Basic Skills (ITBS). The rationale for this change is explained in greater detail in other R&E reports concerning the District's System-wide Testing Program (e.g., Technical Study of the ITBS, Research Report No. 75-548), and for this reason need not be considered in any detail here. The major thrust of the rationale was that the ITBS appeared to be better articulated and organized for measuring scholastic achievement in the D.I.S.D. The introduction of a new set of tests posed a threat to the longitudinal study of achievement as measured by standardized achievement tests. For this reason, a study was designed to equate scores obtained previously on the CAT and CTBS, to ITBS grade-equivalent scores. More specifically, the study was designed to equate CAT and CTBS scores in the areas of reading, mathematics, and language arts to ITBS grade-equivalent scores in reading, mathematics, and language arts.

A Note of Caution Concerning the Comparability of Test Scores: Before proceeding, it is important to point out that while the results of this study yield equations which allow ITBS scores to be estimated from given CAT and CTBS scores within specifiable degrees of confidence the degree to which the two sets of scores can be said to be equivalent ultimately depends upon the degree to which the two sets of tests, CAT or CTBS and ITBS, tend to measure the same thing. Thus, although it is possible to compute an ITBS grade-equivalent score in reading from an individual's CTBS score in reading, to say that the two scores are comparable or equivalent in any way other than a correlational sense requires that a case be made that the two reading tests are parallel in terms of what they measure.

Procedures

Sample: The plan for this study called for a sample of students to be administered both the full ITBS battery and one major section of either the CAT or CTBS depending upon the students' grade level. Since a modified out-of-level testing plan is used to administer the ITBS, the sampling procedure used to obtain a large representative number of students at all appropriate grade and ITBS test level combinations was fairly complicated. The distribution of the ITBS across grades 2 - 8 is summarized in Table 1. As is shown in the table, more than one level of the ITBS was administered at grades 4 - 8. Within individual schools, however, only one level at any given grade was administered, the choice being made on the basis of the school's previous year's standardized achievement test performance.

Table 1
Summary of
District-wide ITBS Distribution

		ITBS Test Level							
		7	8	9	10	11	12	13	14
	2	✓							
G	3		✓						
R	4			✓	✓				
A	5			✓	✓				
D	6				✓	✓	✓		
E	7					✓	✓		
	8						✓	✓	✓

The sampling procedure was designed to yield a sample of students from representative schools throughout the District for each grade and test level combination checkmarked in Table 1. At the elementary school level, this involved a two-stage sampling plan. In the first stage, grade-levels-within-school were sampled randomly subject to the constraint that the school, at each grade level sampled, contained at least three sections or homerooms. Sampling at this stage continued until approximately one half of the schools at each grade level had been sampled. This procedure allowed some schools to be included in the sample at more than one grade level. In the second stage of the elementary school sampling plan, a random sample of three homerooms from each of the sampled grade-levels-within-school was randomly assigned to one of three testing sessions: reading, mathematics, or language arts. This procedure resulted in 129 of the District's elementary schools participating in the study.

A different approach was used to sample students from the District's middle and junior high schools (grades 7 and 8). From each of these schools, a random sample of approximately 150 student names at each grade level[1] was drawn from the schools' student rosters.

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[1] The standardized testing program is not administered to the seventh grade in all District high schools. Specifically, only those schools which require seventh-grade, fall testing in order to provide data for accountability purposes because of participation in Federally funded programs administer the fall testing program to grade 7. The majority of these schools are in the District's geographical Area IV. This is generally true for all odd-grade, fall testing.

Methodology: Originally, the plan was to employ the equipercentile method of equating tests. Since data were available for the same individuals for both sets of tests, however, the equipercentile method which does not take into consideration the correlation between the two sets of scores, was rejected in favor of a more powerful linear prediction approach.

In these analyses, the ITBS grade-equivalent (GE) score was treated as a criterion variable, and either CAT or CTBS raw scores (and functions of these scores) served as predictors. In addition, CTBS raw scores were converted to growth scores (scores which according to the CTBS publishers are akin to ITBS GE scores) and subsequently used as predictors in a separate set of analyses.

Several different forms of prediction models were tried in each of the three areas tested. In general, the most complex of these models is represented, abstractly, in Equation 1.

$$\begin{aligned} \hat{Y}_i = c_i &+ a_1X_{i1} + a_2X_{i2} + a_3X_{i3} \\ &+ b_1X_{i1}^2 + b_2X_{i2}^2 + b_3X_{i3}^2 \\ &+ d_{12}X_{i1}X_{i2} + d_{13}X_{i1}X_{i3} + d_{23}X_{i2}X_{i3}. \end{aligned} \quad [1]$$

In this equation $\hat{Y}_i$ represents the i'th individual's predicted ITBS GE score in, say, mathematics. X_{i1} would then represent his score on, say, the CTBS subtest, Mathematical Computation; X_{i2}, his score on Mathematical Concepts and X_{i3}, his score on Mathematical Applications. The squared and crossproduct terms represent curvilinear functions of these three predictors. The a, b, c, and d terms in the equation are weighting coefficients generated by the analysis procedure in such a way as to maximize the correlation between the individual's predicted GE score and his actual, observed GE score.

Equation 1 in these analyses thus represents what is generally referred to as a full model. In addition to the full model, several reduced prediction models (i.e., models involving subsets of the predictor terms in [2]) were also tried.

A separate set of analyses was computed for each set of predictors (raw scores and growth scores), within each area tested (reading [vocabulary and comprehension], mathematics, and language arts), at all seven grade levels (grades 2 - 8), for each sex, and three ethnic classifications (Negro, Anglo, and Mexican-American). In all, over 2000 prediction models were computed.[2]

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[2] A complete cross-validation study was originally considered. In the course of running the first set of analyses for this purpose, however, it was discovered that, within any given test area, the same predictors continued to emerge as most important time after time across groups and grade levels. Furthermore, there appeared to be a considerable amount of consistency in the observed value of the prediction coefficients from group to group and grade to grade. For this reason, continuation of the cross-validation phase of the study was deemed unnecessary.

Each school sample was split further into three random subgroups of 50 students each and assigned at random to one of the three major testing sessions. Then, starting with the first name in each of these randomly ordered subgroups, students were assigned one at a time to participate in the special CTBS testing. When a student, whose name was on the list, was, for some reason, unavailable to participate in the special testing, his name was dropped from the list and the local testing coordinator moved on to the next name in the list. This process continued until 30 or more students were included in the designated testing session.

In all, over 1200 elementary school students, and more than 3000 high school students participated in the special CAT and CTBS test administration.

Test Administration: The ITBS was administered to DISD students for the first time during the last two weeks of October, 1974. For a combination of practical and administrative considerations, the special CAT and CTBS test administrations could not be scheduled until the first week in November. Thus, ITBS testing preceded CAT and CTBS testing. Nevertheless, the special testing sessions followed the regular testing sessions closely enough so as not to constitute a serious threat to the external validity of the study. The CAT and the various levels of the CTBS were administered to the grade levels indicated in Table 2.

The answer sheets for levels 9 - 14 of the ITBS were scored and preprocessed by the Westinghouse Test Scoring Service in Iowa City. All other tests, including those from the special testing sessions were scored and keypunched locally.

After all tests had been scored and rendered in a form suitable for computer manipulation, software, developed specifically for this study, was used to sort, match, and merge the test scores for the same students from the two testing sessions. This initial processing of the data netted matched data on 13,350 students, or about 92 percent of the original sample which participated in the special testing sessions. These students were distributed across grades and CAT - CTBS test levels as shown in Table 2

Table 2
Number of Students by Grade Level on Whom
Matched Testing Data Were Available

		CTBS Level		
GRADE	CAT	Q1	Q2	Q3
2	2665			
3		893		
4			3565	
5			759	
6			3623	
7				222
8				1623

Table 3

Summary of the Prediction Analysis for Predicting ITBS Grade-Equivalent Scores from CAT Raw Scores at Grade 2

Reading Vocabulary			Word Analysis			Reading Comprehension			Mathematics			Language Arts		
R^2	SEE	N	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N
.680	.496	802	.552	.478	801	.694	.519	805	.640	.379	887	.552	.655	799

Table 4

Summary of the Prediction Analyses for Predicting ITBS Grade-Equivalent Scores from CTBS Q1 Raw Scores and Growth Scores at Grade 3

	Reading Comprehension			Mathematics			Spelling			Language Arts		
	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N
Raw Scores	.632	.497	303	.517	.426	285	.365	.769	250	-	-	-
Growth Scores	.619	.507	304	.523	.433	319	-	-	-	.291	.795	266

Table 5

Summary of the Prediction Analyses for Predicting ITBS Grade-Equivalent Scores from CTBS Q2 Raw Scores and Growth Scores

	Reading Vocabulary			Reading Comprehension			Mathematics			Language Arts		
	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N
Grade 4												
Raw Scores	.680	.800	1219	.654	.785	1220	.676	.596	1014	.462	.912	1043
Growth Scores	.657	.829	1236	.640	.801	1237	.652	.617	1118	.462	.911	1109
Grade 5												
Raw Scores	.664	.694	241	.727	.623	240	.486	.588	250	.257	.791	213
Growth Scores	.648	.712	244	.705	.650	243	.460	.606	265	.426	.808	216
Grade 6												
Raw Scores	.745	.934	1229	.701	.948	1231	.667	.796	1041	.384	1.069	1079
Growth Scores	.711	.994	1246	.828	.969	1248	.797	.833	1103	.469	1.171	1170

Table 6

Summary of the Prediction Analyses for Predicting ITBS Grade-Equivalent Scores from CTBS Q3 Raw Scores and Growth Scores

	Reading Vocabulary			Reading Comprehension			Mathematics			Language Arts		
	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N	R^2	SEE	N
Grade 7												
Raw Scores	.685	.979	83	.728	.813	83	.587	.763	69	.762	.575	54
Growth Scores	.695	.976	83	.743	.806	83	.591	.774	72	.765	.578	57
Grade 8												
Raw Scores	.758	1.124	505	.751	1.026	505	.726	.942	509	.794	.980	514
Growth Scores	.752	1.137	507	.750	1.029	507	.735	.926	510	.778	1.007	549

Table 7

Subgroups for Which Prediction Equations are Available
for Estimating ITBS Grade-Equivalent Scores
from CAT Scores at Grade 2

Reading Vocabulary		Reading Comprehension	
Group	N	Group	N
Combined Group	802	Combined Group	805
Males	403	Males	402
Females	399	Females	403
Anglos	359	Anglos	363
Negroes	285	Negroes	284
Mexican-Americans	151	Mexican-Americans	152

Mathematics		Language Arts	
Group	N	Group	N
Combined Group	887	Combined Group	799
Males	446	Males	408
Females	441	Females	391
Anglos	384	Anglos	398
Negroes	378	Negroes	301
Mexican-Americans	119	Mexican-Americans	90

Table 8

Subgroups for Which Prediction Equations are Available for Estimating ITBS Grade-Equivalent Scores from CTBS Q1 Raw Scores and Growth Scores at Grade 3

Reading Vocabulary

Group	N	
	RS	GS
Combined Group	303	304
Males	144	144
Females	158	159
Negroes	250	251

Reading Comprehension

Group	N	
	RS	GS
Combined Group	303	304
Males	144	144
Females	158	159
Negroes	250	251

Mathematics

Group	N	
	RS	GS
Combined Group	285	319
Males	151	181
Females	134	138
Negroes	132	149

Language Arts

	N	
	RS	GS
Combined Group	250	266
Males	123	132
Females	127	134

Table 9

Subgroups for Which Prediction Equations are Available for Estimating ITBS Grade-Equivalent Scores from CTBS Q2 Raw Scores and Growth Scores

Grade 4

Reading Vocabulary			Reading Comprehension		
	N			N	
Group	RS	GS	Group	RS	GS
Combined Group	1219	1236	Combined Group	1220	1237
Males	603	613	Males	601	611
Females	613	620	Females	616	623
Anglos	581	585	Anglos	581	585
Negroes	446	456	Negroes	447	457
Mexican-Americans	179	182	Mexican-Americans	179	182

Mathematics			Language Arts		
	N			N	
Group	RS	GS	Group	RS	GS
Combined Group	1014	1118	Combined Group	1043	1109
Males	480	526	Males	515	551
Females	534	592	Females	525	555
Anglos	499	528	Anglos	485	493
Negroes	345	409	Negroes	402	455
Mexican-Americans	157	166	Mexican-Americans	138	143

Grade 5

Reading Vocabulary			Reading Comprehension		
	N			N	
Group	RS	GS	Group	RS	GS
Combined Group	241	244	Combined Group	241	243
Males	109	111	Males	109	110
Females	132	133	Females	132	133
Negroes	176	178	Negroes	176	176

Table 9 (continued)

Mathematics

Group	N	
	RS	GS
Combined Group	250	265
Males	112	121
Females	138	144
Negroes	182	188

Language Arts

Group	N	
	RS	GS
Combined Group	211	216
Males	103	105
Females	93	111
Negroes	160	165

Grade 6

Reading Vocabulary

Group	N	
	RS	GS
Combined Group	1229	1246
Males	609	618
Females	615	623
Anglos	639	650
Negroes	377	382
Mexican-Americans	194	195

Reading Comprehension

Group	N	
	RS	GS
Combined Group	1231	1248
Males	614	623
Females	612	620
Anglos	640	651
Negroes	380	385
Mexican-Americans	192	193

Mathematics

Group	N	
	RS	GS
Combined Group	979	971
Males	434	463
Females	543	572
Anglos	552	-
Negroes	344	-
Mexican-Americans	67	-

Language Arts

Group	N	
	RS	GS
Combined Group	1075	1170
Males	518	566
Females	555	602
Anglos	511	572
Negroes	341	364
Mexican-Americans	210	220

Table 10

Subgroups for Which Prediction Equations are Available for Estimating ITBS Grade-Equivalent Scores from CTBS Q3 Raw Scores and Growth Scores

Grade 7

Reading Vocabulary

Group	N RS	N GS
Combined Group	83	83

Reading Comprehension

Group	N RS	N GS
Combined Group	83	83

Mathematics

Group	N RS	N GS
Combined Group	69	72

Language Arts

Group	N RS	N GS
Combined Group	54	57

Grade 8

Reading Vocabulary

Group	N RS	N GS
Combined Group	505	507
Males	236	235
Females	267	269
Anglos	275	275
Negroes	181	183

Reading Comprehension

Group	N RS	N GS
Combined Group	505	507
Males	236	236
Females	266	268
Anglos	275	275
Negroes	181	183

Mathematics

Group	N RS	N GS
Combined Group	509	510
Males	232	233
Females	276	276
Anglos	272	240
Negroes	198	107

Language Arts

Group	N RS	N GS
Combined Group	514	549
Males	276	297
Females	238	252
Anglos	309	330
Negroes	160	168

The well-documented computer program, BMD03R, was used to compute the many analyses required for this study. Two minor modifications were made in the program, however. The first modification was to include a procedure to eliminate subjects on whom data were incomplete. The second was to output results to more decimal places. The program was tested to establish that the changes did not affect the results produced by the program.

Results

The more global results of the comparability study are very briefly summarized in Tables 3, 4, 5 and 6 where multiple coefficients of determination (R^2), standard errors of estimate (SEE), and sample sizes for all full models for total groups are presented. Space limitations prevent the inclusion of the various reduced models and subgroup analyses in this summary. Generally, however, the reduced models which included linear combinations of two or three subtests yielded coefficients of determination which were only slightly smaller than those reported for the full models, and standard errors of estimate which were only slightly larger than those reported for the full models.

Within subgroup analyses, coefficients of determination tended to be somewhat higher for Anglo students than for either Negro or Mexican-American students. The results for the two sexes were essentially equivalent.

In interpreting the tables, it should be borne in mind that coefficients of determination provide a measure of the accuracy of the prediction model and that coefficients above .64 can be considered fairly good. Actually the square root of the coefficient of determination is the correlation between the predicted score and the actual, observed score. Thus, for instance, in Table 3, an R^2 of .680 in reading vocabulary indicates a correlation of about .82 between second graders' ITBS GE scores in reading and their corresponding predicted GE scores, given their reading scores on the CAT.

The standard errors of estimate provide a second, and to some, better estimate of the accuracy of the prediction models. The SEE is actually the standard deviation of the predicted scores and as such provides information concerning the variability in the distribution of the estimated ITBS GE scores.

From the tables it will be found that estimation tended to be best in reading and poorest in language arts, with estimated mathematics scores falling somewhere in between. Across grade levels, there was a general trend toward more accurate estimation of ITBS GE scores at higher grade levels. Contrary to what was originally expected, prediction of ITBS GE scores from CTBS growth scores was not consistently superior to prediction from CTBS raw scores.

Additional information concerning the subgroups for which prediction equations were developed is given in Tables 7, 8, 9, and 10. In those tables where particular subgroups are conspicuous by their absence, it is due to the unavailability of a large enough number of students for reliable estimation.

Additional Information:

75-547 ITBS - CTBS - CAT Comparability Study, 1975, George H. Olson.

970

Abstract

Development of Basic Objectives Assessment Tests (BOAT) in Mathematics

Evaluator: Robbie G. Davis

Objectives of the Program: The Dallas Independent School District (DISD) has developed mastery objectives for each of the disciplines taught in the District. These objectives along with suggested teaching strategies are bound in Baseline Documents. Since teachers follow the Baseline objectives in teaching at each grade level, there has been a need for competency tests that would measure student progress throughout his/her school experiences.

In order to effectively monitor this progress, the DISD has authorized the development of tests for the following disciplines: mathematics, reading, science, and social studies. The criterion-referenced tests, called Basic Objectives Assessment Tests (BOAT) will be administered in the spring of each year on a District-wide basis in grades 3, 6, 8 and 12.

Purpose of the Evaluation: The goal of the testing program is to evaluate student achievement and to determine each student's progress toward functional literacy. The BOAT also will aid in establishing an accountability system to insure that all students achieve at their projected rate. Further, it is anticipated that the BOAT will be used for other purposes such as developing alternative teaching strategies for students who achieve at a minimal rate.

Sample: Students (N=843) in 37 classrooms of elementary and middle schools were administered the tryout test items for the 3rd- and 6th-grade BOAT. The schools represented were the following:

School	Grade	School	Grade
Blair	3, 4, 6	Russell, C. P.	4, 6
Central	6	Stevens Park	3, 4, 6
Donald	3, 4, 6	Walnut Hill	3, 4, 6
Ireland	3, 4, 6	Atwell	7
Kleberg	3, 4, 6	Gaston	7
Lee, R. E.	3, 4, 6	Greiner	7
Lipscomb	3, 4, 6	Hood	8
Miller, W. B.	3, 4, 6	Rusk	7
Navarro	3	Walker	7

The 8th- and 12th-grade tests (Everyday Skills Tests) for mathematics had been purchased and improved during the 1975-76 school year. Construction of the BOAT for these levels was therefore unnecessary.

Evaluation Design: Content specialists from Instructional Services delineated the specific objectives from which test items needed to be developed for the BOAT. Because all of the objectives except three from each of the grade levels came directly from the 1976-77 Mathematics Baseline, most of the objectives already had items written for them. These items also had been field-tested and analyzed. Only the new items will be discussed here.

Five test items were developed by the criterion-referenced testing staff for each of the newly written objectives. The items were reviewed and critiqued twice by Instructional Services personnel. Their suggestions for improving the items were taken and all items were approved and recommended for use in the BOAT by the Assistant Director -- Mathematics and by the Coordinator K-3.

Because three test items per objective were desired for the BOAT, it was believed that five items per objective would be a sufficient number to construct for tryout purposes. From these five items, the best three items were selected for each objective to be included in the BOAT.

The mathematics tryout items, constructed in the multiple-choice format, were included in the science tests for preliminary tryout testing. While taking the tests, all students had separate answer sheets on which to mark their responses. Students from 37 classrooms were administered the tests by their teachers during the period of March 14-24, 1977. Prior to these dates, teachers were given instructions via test manual and memoranda concerning test administration and concerning the completion of teacher questionnaires. Before the data analysis phase of the study, opinions of teacher who administered the items were reviewed to determine faulty or misleading items.

The data analysis was primarily concerned with examination of item statistics. In constructing the tests, it was assumed that a good subtest for an objective would be composed of items with similar difficulties. It was also assumed that an examinee would be likely to answer all items either correctly or incorrectly. For these reasons, evaluation of item means and item-subtest correlations were emphasized in the data analysis phase of the study.

The major questions investigated in the data analysis are listed below:

1. Do the items possess face validity?
2. Based upon the assumption of homogeneity of item domains, are there sufficient items of acceptable quality to compose subtests for each objective?
3. Are the subtests reliable?
4. Do some items have response alternatives that need to be changed?
5. Which items can be classified as faulty on the basis of teacher questionnaires?

6. What recommendations concerning test format can be employed based on teacher questionnaires?

Evaluation Results:

1. Content Specialists in Instructional Services of the DISD reviewed and confirmed the face validity of the items. It was the specialists' opinion that the test items adequately measured the skills suggested by the mastery objectives.

2. From examinations and comparisons of item means and item-subtest correlations, it was evident that there were sufficient items of good quality to compose subtests for the objectives. Because all items except two were of good quality, those items with the highest item-subtest correlation coefficients were generally selected for the final tests since the item means within subtests were similar.

3. Five reliability estimates were high and one was moderate.

4. A few items had response alternatives or distractors which had little appeal. Because these alternatives were not attractive to nonmastery students, an attempt was made to replace them with more plausible distractors.

5. Teachers who administered the tests did not find any faulty or misleading items.

6. Teachers who administered the tests indicated that the test format was very appropriate.

7. For those 3rd-grade teachers responding to a second questionnaire, the general consensus was that students in the 2nd or 3rd quarter of the 3rd grade can use a separate answer sheet when taking a test if sufficient practice is given to them.

Additional Information:

ST77-004-8-2 Development of Basic Objective Assessment Tests (BOAT) in Mathematics, 1977, Robbie G. Davis, 50 pages.

ST77-004-9-2 Development of Basic Objectives Assessment Tests (BOAT) in Mathematics, 1977, Robbie G. Davis, Marjie Lucas Bellinger.

76-848 Literacy Testing Program in Reading and Mathematics, 1976, Robbie G. Davis, 36 pages.

75-876 Evaluation of Test Items and Test Manuals for the Diagnostic Mathematics Tests, 1975, Robbie G. Davis, 143 pages.

Abstract

Development of Basic Objectives Assessment Tests (BOAT) in Science/Health

Evaluator: Robbie G. Davis

Objectives of the Program: The Dallas Independent School District (DISD) has developed mastery objectives for each of the disciplines taught in the District. These objectives along with suggested teaching strategies are bound in Baseline Documents. Since teachers follow the Baseline objectives in teaching at each grade level, there has been a need for competency tests that would measure student progress throughout his/her school experiences.

In order to effectively monitor this progress in selective disciplines, the DISD has authorized the development of tests in the following areas: mathematics, reading, science, and social studies. The criterion-referenced tests, called Basic Objectives Assessment Tests (BOAT) will be administered in the spring of each year on a District-wide basis in grades 3, 6, 8 and 12.

Purpose of the Evaluation: The goal of the testing program is to evaluate student achievement and to determine each student's progress toward functional literacy. The BOAT also will aid in establishing an accountability system to insure that all students achieve at their projected rate. Further, it is anticipated that the BOAT will be used for other purposes such as developing alternative teaching strategies for students who achieve at a minimal rate.

Sample: Students (N=1,156) in 53 classrooms of elementary, middle and high schools were administered the tryout items for the BOAT. The schools represented were the following:

School	Grade	School	Grade
Blair	3, 4, 6	Atwell	7
Central	6	Gaston	7
Donald	3, 4, 6	Greiner	7
Ireland	3, 4, 6	Hood	8
Kleberg	3, 4, 6	Rusk	7
Lee, R. E.	3, 4, 6	Walker	7
Lipscomb	3, 4, 6	Carter	-
Miller, W. B.	3, 4, 6	Pinkston	-
Navarro	3	Samuell	-
Russell, C. P.	4, 6	Seagoville	-
Stevens Park	3, 4, 6	S. Oak Cliff	-
Walnut Hill	3, 4, 6		

Evaluation Design: Content specialists from Instructional Services delineated the specific objectives from which test items needed to be developed for the BOAT. Then, staff members from Instructional Services and the Department of Research, Evaluation, and Information Systems (RE&IS) worked together in the development and refinement of test items to match the objectives.

Five test items were developed for each Minimal Student Outcome (3rd and 6th grades) under which the objectives were subsumed. (The objectives for the literacy test were not subsumed under Minimal Student Outcomes.) After the items were reviewed, critiqued, and revised by personnel of Instructional Services and RE&IS, they were approved and recommended for use in the BOAT by the Director -- Science and Health and by the Coordinator K-3.

Because three test items per subtest were desired for the BOAT, it was believed that five items per subtest [i.e., Minimal Student Outcome (MSO) or objective] would be a sufficient number to construct for tryout purposes. From these five items, the best three items were selected for each subtest to be included in the BOAT.

The tryout items were constructed in multiple-choice format, and all students had separate answer sheets on which to mark their responses. Students from 53 classrooms were administered the tests by their teachers during the period of March 14-24, 1977. Prior to these dates, teachers were given instructions via test manual and memoranda concerning test administration and concerning the completion of teacher questionnaires. Before the data analysis phase of the study, opinions of teachers who administered the items were reviewed to determine faulty or misleading items.

The data analysis was primarily concerned with examination of item statistics. In constructing the tests, it was assumed that a good subtest for an objective or MSO would be composed of items with similar difficulties. It was also assumed that an examinee would be likely to answer all items either correctly or incorrectly. For these reasons, evaluation of item means and item-subtest correlations were emphasized in the data analysis phase of the study.

The major questions investigated in the data analysis are listed below:

1. Do the items possess face validity?
2. Based upon the assumption of homogeneity of item domains, are there sufficient items of acceptable quality to compose subtests for each objective or MSO?
3. Are the subtests reliable?
4. Do some items have response alternatives that need to be changed?
5. Can some of the items be classified as faulty on the basis of teacher questionnaires?

6. Can recommendations concerning test format be employed based on teacher questionnaires?

Evaluation Results:

1. Content specialists in Instructional Services of the DISD either wrote or reviewed all test items. It was the specialists' opinion that the test items adequately measured the skills suggested by the objectives.

2. From examinations and comparisons of item means and item-subtest correlations, it appeared that there were sufficient items of acceptable quality to compose a single subtest for each MSO or objective. For many of the items where scoring was at chance level, correlations were moderate or moderately high. This indicates that, although the items were very difficult, the students who answered a given item correctly tended to answer many of the items correctly.

3. The reliability estimates ranged from low to moderately high. Perhaps there are two major reasons for the low reliability coefficients. First, some items in some subtests were so difficult that many students merely guessed at the answer. Second, several objectives were subsumed under the MSO which necessitated writing items that measured several different skills.

   The subtest summaries have little relevance to the selection of items for the final tests. These values would have relevancy if the tests were to be used in the future exactly as they were used in the tryout. By using the three better items for each subtest, higher subtest values are anticipated for the final test forms. It is assumed that the reliability estimates of the tryout tests are a lower bound since faulty, or otherwise poor items, were eliminated.

4. Several items had response alternatives or distractors which had little appeal. Because these alternatives were not attractive to nonmastery students, an attempt was made to replace them with more plausible distractors.

5. Teachers who administered the tests indicated that there were 9 faulty or misleading items on the three tests. The teachers usually stated that an item was misleading because an incorrect alternative was too close to the correct answer. These alternatives or distractors were changed to make them less plausible, or the items were deleted from the final test forms.

6. Two teachers who administered the 6th-grade test indicated that the test format could be improved, but they did not specify how

or which items. Teachers administering the literacy test pointed out that a graph and the items pertaining to the graph should be on the same page. This was corrected on the final test.

7. For those 3rd-trade teachers responding to a second questionnaire, the general consensus was that students in the 2nd or 3rd quarter of the 3rd grade can use a separate answer sheet when taking a test if sufficient practice is given to them.

Additional Information:

ST77-005-8-4 Development of Basic Objectives Assessment Tests (BOAT) in Science/Health, 1977, Robbie G. Davis, 82 pages.

ST77-004-8-2 Development of Basic Objectives Assessment Tests (BOAT) in Mathematics, 1977, Robbie G. Davis, 50 pages.

76-848 Literacy Testing Program in Reading and Mathematics, 1976, Robbie G. Davis, 36 pages.

ST77-119-3-12

Abstract

Validation of the Secondary Literacy Testing Program in Reading and Mathematics: 1976-77

Evaluator: Robbie G. Davis

Objectives of the Program: Recent studies have revealed that 20 percent of the U. S. adult population is functionally illiterate. It perhaps would not be incorrect to suggest that these adults failed to achieve functional literacy skills while engaged in formal education. The results of the studies, then, suggest the need for assessing the literacy status of students throughout their secondary school experiences. The Dallas Independent School District (DISD) has therefore included reading and mathematics literacy tests* in its criterion-referenced testing program.

The large number of programs designed to eliminate adult illiteracy suggests the need for measuring student literacy before graduation and for developing remedial or special curricula options in which the student who does not perform at the specified literate level may be engaged. Students who do not perform at the specified level must be identified and given special help in meeting minimum requirements for functioning in today's society.

Purpose of the Evaluation: The literacy tests were designed to identify 8th-grade students who do not function at the literate level. Early identification is essential so that special attention in the form of counseling, remedial courses, or a specially prepared curriculum emphasizing daily living skills may be provided these students before they reach the legal age for dropping out of school or before graduation. Equally important to the total educational process is the potential use of the test objectives and results in the development of curriculum and alternative instructional approaches.

Results from both the 8th- and 12th-grade administrations of the tests will enable curriculum specialists in the development and evaluation of the curriculum. Specific curricular strengths and weaknesses can be readily identified, and modifications in the curriculum relating to the literacy objectives can be supported by empirical data. Thus, testing efforts play a unique role in the development and modification of the school curriculum.

If, in later years, students are required to perform at a specified level before receiving a high school diploma, administration of the literacy tests at the 12th grade level, then, will be the major determiner of eligibility for high school graduation.

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*It should be pointed out that the term "literacy" is not necessarily limited to its literacy connotation. Rather, it is used to refer to the level of one's functioning in both reading and mathematics that is generally considered necessary in today's society.

Results of the literacy testing will be used for evaluation purposes. One use, for example, might be to determine the relative effectiveness of the standard curriculum or a specially prepared curriculum for those students who did not perform at the literate level in the 8th grade. The evaluation of programs through literacy testing will enable school personnel to determine the effectiveness of different programs as well as to monitor student progress toward the literate state.

Sample: The literacy tests were administered District-wide to 8th-grade students (N=10,059) during the period of February 1-8, 1977 and to 12th-grade students (N=5,902) during March 14-17, 1977. Because of absentees and scheduling problems, some 8th graders and many 12th graders were not tested. All schools, however, did administer the tests.

Evaluation Design: Because the Spring, 1977 administration of the tests was the first year for using such tests, it was felt that all 8th- and 12th-grade students should be given the tests in order to obtain certain baseline data. Empirical data from which administrative decisions could be made for further use of the tests were sought. The major questions of interest were:

1. What is the percentage of students responding correctly to at least two out of three items on n reading and mathematics objectives?
2. What is the percentage of students responding correctly to at least two out of three items on each reading and mathematics objective?
3. What is the percentage of students responding correctly to each reading and mathematics item?
4. How do the predominant majority and predominant minority senior high schools compare in performance on the two tests?
5. Are there some alternative strategies for determining literacy status?
6. What are some pertinent teacher comments and their implications as gleaned from a teacher opinionnaire?

Evaluation Results:

1. The data in Tables 1-4 present the percentage of 8th- and 12th-grade students who mastered specific number of reading and mathematics objectives. (A student who correctly answers at least two of three items on an objective is considered to have mastered the objective.) Examples of the interpretation of the tables are given. A majority (75%) of the students at Hood Middle School mastered 12 of the reading objectives. On the senior high school level, 18% of the District's 12th graders mastered all 15 mathematics objectives. The percentages are presented to give some guidance in establishing the number of objectives that must be mastered for a student to be classified as literate.

Table 1

Percentage of 8th-Grade Students Mastering n Reading Objectives
(N=10,059)

	Number of Objectives Mastered														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Anderson	97	96	94	91	87	85	82	78	73	66	60	54	43	28	14
Atwell	100	100	99	99	98	98	97	96	94	89	86	80	69	51	29
Browne	96	96	95	94	94	93	91	90	87	83	78	72	64	50	29
Cary	92	91	90	90	89	88	86	84	82	80	77	71	62	49	32
Comstock	99	98	95	93	91	88	86	84	80	76	72	63	53	38	20
Ervin	99	97	91	88	85	83	80	79	70	63	58	45	33	22	7
Florence	97	96	94	92	89	87	85	82	80	76	73	65	59	44	24
Gaston	92	91	89	88	85	82	81	78	75	72	69	64	56	46	29
Greiner	96	96	95	93	92	91	90	88	86	82	79	73	66	49	27
Hill	94	93	91	89	88	86	85	83	80	79	76	71	65	52	38
Holmes	98	97	94	92	89	83	79	75	70	66	60	51	39	26	13
[a] Hood	99	98	96	94	93	92	89	87	86	84	80	75	68	57	39
Hulcy	95	95	94	92	90	88	86	82	79	72	67	60	53	37	17
Long	96	96	94	91	89	87	85	83	80	77	74	70	60	50	3[illegible]
Marsh	95	95	94	93	91	89	86	84	81	79	76	71	66	56	38
Rusk	99	99	98	98	96	95	94	91	87	85	79	73	64	52	30
[c] Seagoville	100	100	99	97	97	96	95	94	92	88	84	76	68	56	37
Sequoyah	100	97	97	97	91	91	88	88	82	77	62	53	32	21	12
Spence	91	91	90	88	86	85	82	80	74	66	61	52	36	22	8
Stockard	96	96	95	93	92	90	88	86	81	77	72	66	54	36	18
Stone	100	100	98	96	94	92	89	84	80	72	65	55	43	27	13
[b] Storey	98	97	94	91	90	86	83	79	75	69	62	52	38	22	9
Walker	94	93	91	88	86	84	82	80	77	72	67	61	56	48	36
Subdistrict															
E. Oak Cliff	98	97	95	92	90	86	82	79	73	68	61	52	39	24	11
Northeast	95	94	92	90	87	86	85	83	80	78	74	70	62	51	34
Northwest	94	94	92	91	89	88	86	83	80	77	72	66	58	47	31
Southeast	99	97	95	93	91	89	87	85	82	78	75	67	59	46	27
Southwest	97	96	95	93	92	90	88	86	82	77	72	65	54	38	20
District	96	96	94	92	90	88	86	83	80	76	71	64	55	42	25

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[a] Hood Middle School is included in two Subdistricts (Northeast and Southeast).
[b] Storey Middle School is included in two Subdistricts (East Oak Cliff and Southwest).
[c] Seagoville is included in the Southeast Subdistrict.

Table 2

Percentage of 12th-Grade Students Mastering n Reading Objectives
(N=5902)

	Number of Objectives Mastered														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Adams	100	100	99	99	99	99	99	99	99	98	98	98	97	95	86
Adamson	100	100	100	100	100	98	96	95	94	94	93	90	83	71	48
Arts Magnet	97	97	97	97	94	94	94	94	91	88	88	88	84	81	69
Bus.Magnet	100	100	100	100	100	100	100	100	100	100	100	100	100	94	72
Carter	100	100	99	99	99	98	98	97	97	96	95	91	85	72	52
Health Mag.	100	100	100	100	100	100	100	100	100	100	100	89	83	57	33
Hillcrest	100	100	99	99	99	99	99	99	99	98	98	96	95	94	83
Jefferson	100	100	100	100	100	100	99	99	99	99	97	96	93	90	76
Kimball	100	100	100	100	100	100	100	100	100	99	98	97	94	88	70
Lincoln	100	100	100	98	97	96	93	92	89	86	84	80	69	53	29
Madison	100	100	95	95	95	95	86	86	86	81	81	76	71	57	48
N.Dallas	100	100	100	100	100	99	98	97	96	94	89	88	81	66	45
Pinkston	100	97	97	97	95	93	91	89	87	84	82	76	66	52	27
Roosevelt	100	100	99	98	98	97	96	95	92	91	87	82	76	59	31
Samuell	100	100	99	99	99	99	98	97	97	97	96	94	93	88	76
Seagoville[b]	99	99	99	99	99	97	97	97	97	97	96	93	89	85	70
Skyline	100	100	99	99	99	99	99	99	98	98	97	96	94	90	76
S.Oak Cliff	100	100	100	99	98	98	96	96	95	92	89	84	77	60	34
Spruce	100	99	99	99	99	99	98	97	97	96	95	93	87	77	55
Sunset	100	99	99	99	99	99	99	99	98	98	98	97	94	87	67
Trans.Mag.[a]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
White	100	100	100	100	100	100	100	100	100	100	100	99	98	95	88
Wilson	100	100	99	99	98	98	97	95	94	92	91	89	84	74	59
Subdistrict															
E.Oak Cliff	100	100	100	99	98	98	96	95	94	91	88	83	77	60	33
Northeast	100	100	99	99	99	99	99	98	98	97	96	95	94	89	77
Northwest	100	100	99	99	99	99	98	98	97	96	95	93	90	85	72
Southeast	100	100	99	99	98	98	97	96	95	94	93	90	85	76	58
Southwest	100	100	100	100	99	99	99	98	98	97	96	94	90	82	61
District	100	100	99	99	99	99	98	97	97	96	95	92	89	81	64

[a] Only two students took the tests at the Transportation Magnet.
[b] Seagoville is included in the Southwest Subdistrict.

Table 3

Percentage of 8th-Grade Students Mastering n Mathematics Objectives (N=10,059)

	Number of Objectives Mastered														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Anderson	96	94	84	74	62	46	35	30	21	14	11	8	4	1	0
Atwell	100	99	96	91	84	74	61	52	47	40	30	21	13	6	2
Browne	98	96	93	87	81	71	63	53	44	38	30	21	12	6	2
Cary	91	87	85	81	77	71	65	56	50	43	33	23	15	9	4
Comstock	98	95	89	83	74	67	56	47	36	29	20	12	8	4	1
Ervin	98	93	87	74	61	50	38	28	16	12	8	4	2	0	0
Florence	92	89	85	79	72	62	56	46	35	26	16	9	5	3	1
Gaston	88	85	81	77	70	63	57	49	42	36	27	19	13	6	2
Greiner	93	92	89	85	79	72	64	54	44	34	27	17	10	6	3
Hill	92	90	86	81	77	71	67	61	55	47	38	29	19	12	5
Holmes	97	93	85	74	62	50	39	28	21	14	9	4	2	1	0
[a]Hood	99	96	93	87	81	72	64	56	47	39	33	24	16	10	3
Hulcy	99	98	93	87	75	65	54	41	34	26	15	8	5	2	2
Long	94	92	89	84	78	71	64	55	48	37	31	22	17	10	3
Marsh	93	91	88	83	79	74	70	64	57	50	44	34	26	15	9
Rusk	99	98	93	90	83	76	70	61	51	39	31	22	10	6	3
[c]Seagoville	100	97	94	92	84	73	65	57	50	41	28	24	12	5	2
Sequoyah	97	91	85	77	68	53	44	35	29	24	15	12	12	6	3
Spence	94	91	88	81	71	59	49	42	32	25	19	13	9	5	2
Stockard	94	91	87	79	72	61	53	43	31	24	18	12	6	3	1
Stone	98	94	84	74	61	49	37	30	23	16	9	5	2	0	0
[b]Storey	96	90	81	69	57	46	36	27	18	11	7	3	1	0	0
Walker	95	92	87	80	74	67	61	55	48	42	34	28	20	11	5
Subdistrict															
E.Oak Cliff	97	92	83	72	60	48	38	28	20	13	8	4	2	1	0
Northeast	93	90	87	82	76	69	63	54	47	39	32	23	16	9	3
Northwest	94	92	88	83	77	70	64	56	49	42	34	26	18	10	5
Southeast	97	94	89	83	75	66	57	49	39	31	23	15	10	5	2
Southwest	96	93	88	81	72	62	53	43	34	26	19	12	7	4	1
District	95	92	87	80	73	64	56	47	39	31	24	17	11	6	2

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[a] Hood Middle School is included in two Subdistricts (Northeast and Southeast).

[b] Storey Middle School is included in two Subdistricts (East Oak Cliff and Southwest).

[c] Seagoville is included in the Southeast Subdistrict.

Table 4

Percentage of 12th-Grade Students Mastering n Mathematics Objectives (N=5902)

	Number of Objectives Mastered														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Adams	99	99	99	99	98	98	96	94	92	89	85	79	70	55	29
Adamson	99	99	98	96	94	91	85	80	70	62	50	35	[illegible]	17	10
Arts Magnet	97	97	97	94	84	84	81	81	81	75	72	72	53	44	22
Bus.Magnet	100	94	94	94	94	94	94	94	89	83	61	50	39	33	11
Carter	100	100	99	98	94	90	84	75	68	60	51	42	32	19	8
Health Mag.	100	100	100	100	89	89	78	61	56	44	39	39	22	11	11
Hillcrest	99	99	99	99	98	97	95	92	91	88	87	81	72	58	34
Jefferson	100	100	100	99	98	96	94	91	88	84	77	69	61	45	22
Kimball	100	100	100	99	98	97	95	92	88	82	76	68	57	42	19
Lincoln	100	98	96	93	89	83	74	65	55	42	35	24	17	9	2
Madison	100	95	95	91	81	81	81	67	48	48	38	24	19	5	0
N.Dallas	100	100	100	95	92	88	82	77	69	61	53	44	34	22	5
Pinkston	100	98	95	90	83	77	68	58	48	40	32	22	13	4	1
Roosevelt	100	99	98	94	90	84	74	61	51	40	28	20	13	8	2
Samuell	100	100	99	98	96	95	92	90	85	81	75	67	53	38	17
[b] Seagoville	99	99	97	97	93	92	87	84	81	80	70	64	51	39	16
Skyline	100	100	99	99	98	97	95	92	88	82	76	68	59	46	24
S.Oak Cliff	100	99	95	93	87	81	73	62	50	40	30	20	13	8	4
Spruce	100	99	99	97	94	92	86	80	74	65	56	48	39	22	6
Sunset	100	99	99	99	97	95	93	91	84	78	70	59	47	36	13
[a] Trans.Mag.	100	100	100	100	100	100	100	100	50	50	50	50	50	50	0
White	100	100	100	99	99	98	98	96	95	94	92	90	86	76	44
Wilson	100	99	98	96	95	92	88	81	76	68	62	56	46	32	11
Subdistrict															
E.Oak Cliff	100	99	97	93	88	82	73	62	50	40	29	20	13	8	3
Northeast	100	99	99	98	97	96	94	91	87	82	77	70	61	47	24
Northwest	100	99	99	97	96	93	90	87	83	79	76	69	62	50	27
Southeast	100	99	98	96	94	91	86	80	74	67	59	50	40	26	9
Southwest	100	100	99	98	96	94	90	85	80	71	63	54	43	30	13
District	100	99	99	97	95	92	87	84	78	72	66	58	49	37	18

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[a] Only two students took the test at the Transportation Magnet.
[b] Seagoville is included in the Southeast Subdistrict.

2. The percentage of students who mastered each reading and mathematics objective is presented in Tables 5-8. From a review of the tables, it is evident that 98% of the 8th-grade students at Seagoville mastered reading objective No. 1, but only 57% mastered objective No. 15. On the mathematics test, 98% of the 12th-grade students at Spruce High School mastered objective No. 1, but only 23% mastered objective No. 15.

Table 5

Percentage of 8th-Grade Students Mastering Each Reading Objective
(N=10,059)

	Objective Mastered by Students														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Anderson	88	86	79	63	75	76	74	86	71	74	66	76	58	36	40
Atwell	99	96	96	87	93	96	92	94	93	88	83	91	75	56	45
Browne	94	92	88	82	88	89	88	89	83	88	74	82	70	56	48
Cary	89	88	83	81	84	84	84	86	79	83	72	80	64	57	49
Comstock	93	92	83	77	83	82	82	85	81	84	68	76	63	45	41
Ervin	88	84	74	68	76	76	81	82	71	75	59	67	44	32	22
Florence	91	89	85	77	83	83	81	84	80	82	70	77	67	54	39
Gaston	88	84	80	76	78	78	80	82	76	79	66	74	63	52	44
Greiner	94	92	88	83	87	87	88	89	82	83	73	81	69	57	50
Hill	88	87	83	80	83	82	83	86	81	83	70	79	70	57	56
Holmes	92	86	76	68	77	76	80	80	73	75	59	69	54	37	30
[a]Hood	95	91	88	82	87	87	86	90	86	85	76	87	76	65	56
Hulcy	91	91	84	78	85	81	81	82	76	79	64	74	58	43	39
Long	93	92	87	77	83	81	81	83	80	81	72	77	67	58	51
Marsh	90	90	84	78	86	84	84	88	82	86	74	83	69	61	56
Rusk	96	95	91	81	89	91	87	93	87	90	77	87	72	58	48
[c]Seagoville	98	95	91	92	92	93	92	95	90	87	78	84	73	63	57
Sequoyah	91	88	85	65	88	85	82	85	74	71	56	79	68	44	27
Spence	89	88	77	65	78	73	78	80	76	74	55	73	54	31	26
Stockard	93	89	83	79	83	82	84	86	81	83	70	78	64	49	34
Stone	96	93	84	71	84	84	79	89	78	82	63	79	58	36	31
[b]Storey	93	90	84	67	77	78	79	83	73	76	62	70	56	33	26
Walker	88	86	82	76	80	80	81	83	75	79	67	73	63	53	49
Subdistrict															
E.Oak Cliff	93	87	80	68	78	78	79	83	73	76	61	71	55	35	28
Northeast	91	88	84	79	82	82	82	85	80	82	71	79	69	58	51
Northwest	90	89	83	77	83	83	83	86	79	82	70	79	65	54	48
Southeast	93	91	85	79	84	84	83	87	82	84	71	80	68	54	46
Southwest	94	91	86	77	84	84	84	86	80	82	69	78	64	47	38
District	92	89	84	76	83	82	83	85	79	81	69	77	64	50	43

[a] Hood Middle School is included in two Subdistricts (Northeast and Southeast).
[b] Storey Middle School is included in two Subdistricts (East Oak Cliff and Southwest).
[c] Seagoville is included in the Southeast Subdistrict.

Table 6

Percentage of 12th-Grade Students Mastering Each Reading Objective (N=5,902)

	Objective Mastered by Students														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Adams	99	99	99	98	99	99	98	99	98	98	97	98	98	96	90
Adamson	98	97	95	91	95	96	92	97	96	93	91	91	91	78	61
Arts Magnet	97	97	91	94	94	97	88	88	94	88	88	88	91	84	75
Bus.Magnet	100	100	100	100	100	100	100	100	100	100	100	94	94	83	94
Carter	99	97	97	94	97	96	95	96	96	94	90	93	90	79	67
Health Mag.	94	100	89	89	100	100	100	94	100	89	100	100	100	67	39
Hillcrest	99	98	99	98	99	99	98	98	98	98	95	97	97	93	90
Jefferson	99	99	99	98	98	99	99	99	99	98	95	97	97	91	82
Kimball	100	99	100	98	99	99	98	99	89	99	95	96	94	87	84
Lincoln	97	94	92	85	93	89	90	94	92	90	83	85	79	60	44
Madison	91	91	95	76	95	86	86	95	95	91	86	86	76	52	52
N.Dallas	99	97	98	93	93	93	91	97	93	96	88	94	87	75	58
Pinkston	94	93	91	84	92	90	88	93	88	88	80	80	72	57	44
Roosevelt	99	95	94	86	91	93	91	94	93	92	83	92	84	67	45
Samuell	99	98	97	94	97	97	98	98	97	97	95	97	93	90	84
[b]Seagoville	99	99	95	97	97	95	97	97	96	97	96	93	89	89	77
Skyline	99	98	99	97	98	98	98	99	97	98	96	97	97	91	81
S.Oak Cliff	99	97	96	89	95	94	91	95	92	92	86	89	83	67	53
Spruce	98	98	98	94	97	96	97	99	96	95	93	93	89	77	69
Sunset	99	99	99	97	98	98	98	99	97	98	93	95	95	90	77
[a]Trans.Magnet	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
White	100	100	100	99	100	100	99	100	100	99	99	99	97	95	93
Wilson	98	97	96	91	94	95	94	96	94	94	90	90	88	79	70
Subdistrict															
E.Oak Cliff	99	96	95	88	93	93	91	95	93	92	85	90	83	67	50
Northeast	99	98	98	96	98	98	97	98	97	97	96	96	96	91	83
Northwest	99	98	98	96	97	97	96	98	97	96	93	95	92	86	80
Southeast	98	97	96	92	96	95	96	97	95	95	92	93	88	79	69
Southwest	99	98	98	96	98	97	97	98	97	97	93	94	93	84	74
District	99	98	97	95	97	97	96	97	96	96	93	94	92	84	75

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[a] Only two students took the tests at the Transportation Magnet.

[b] Seagoville is included in the Southeast Subdistrict.

Table 7

Percentage of 8th-Grade Students Mastering Each Mathematics Objective
(N=10,059)

	Objective Mastered by Students														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Anderson	79	64	61	41	50	36	31	16	34	43	39	32	18	24	13
Atwell	98	85	86	60	78	51	50	46	57	62	58	37	14	24	10
Browne	92	76	82	62	67	53	41	29	46	64	67	41	19	38	20
Cary	85	77	79	66	69	54	41	32	45	59	61	46	21	37	22
Comstock	87	73	75	57	59	45	35	27	39	53	58	35	21	33	22
Ervin	87	71	53	[illegible]	46	37	23	13	39	37	40	28	19	24	17
Florence	83	70	68	56	60	49	37	24	33	50	52	34	17	27	15
Gaston	82	71	72	60	60	49	39	34	37	52	55	39	15	31	19
Greiner	88	77	77	60	71	51	37	26	45	59	58	39	18	37	28
Hill	85	73	75	63	66	55	46	36	52	61	65	49	27	44	32
Holmes	85	70	65	42	47	33	25	20	34	42	44	24	16	20	13
[a]Hood	90	80	80	62	69	50	46	37	49	61	66	48	28	37	17
Hulcy	93	76	76	52	61	50	28	21	43	54	59	32	17	28	17
Long	88	80	80	63	68	50	42	31	48	60	60	43	22	39	21
Marsh	88	79	80	68	72	60	45	37	55	66	68	51	26	48	36
Rusk	92	79	83	66	74	56	46	31	48	61	65	48	23	37	22
Sequoyah	91	71	68	35	47	24	35	41	27	47	59	24	32	27	24
[c]Seagoville	95	77	88	63	73	49	36	29	45	65	69	50	22	45	17
Spence	89	75	69	59	59	39	28	17	40	46	51	36	19	29	21
Stockard	84	72	75	52	60	50	37	22	36	52	52	30	15	23	15
Stone	84	73	67	37	51	32	26	22	32	44	42	26	15	19	11
[b]Storey	85	64	61	40	47	32	22	17	30	39	42	19	14	21	12
Walker	84	76	75	62	67	52	45	41	47	57	59	45	24	42	23
Subdistrict															
E.Oak Cliff	85	68	63	40	47	32	24	19	32	41	43	22	15	20	12
Northeast	86	76	76	62	65	51	43	35	46	58	61	44	22	37	22
Northwest	87	77	77	64	69	53	42	35	48	59	62	46	23	40	26
Southeast	87	74	75	57	62	47	38	28	41	55	58	39	22	33	18
Southwest	89	73	74	53	61	45	33	24	40	53	54	31	16	28	17
District	87	74	74	56	62	47	37	28	42	54	56	37	19	32	20

[a] Hood Middle School is included in two Subdistricts (Northeast and Southeast).
[b] Storey Middle School is included in two Subdistricts (East Oak Cliff and Southwest).
[c] Seagoville is included in the Southeast Subdistrict.

Table 8

Percentage of 12th-Grade Students Mastering Each Mathematics Objective
(N=5902)

	Objective Mastered by Students														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
School															
Adams	98	97	97	95	94	85	88	77	91	88	92	87	64	82	47
Adamson	97	94	92	82	80	64	67	53	70	70	77	56	43	48	24
Arts Magnet	94	88	84	84	88	72	72	72	75	88	88	75	44	66	47
Bus.Magnet	100	94	94	89	94	67	78	61	89	83	83	56	56	67	17
Carter	97	92	92	79	78	70	67	47	72	71	77	58	36	57	28
Health Magnet	100	94	94	72	78	56	67	33	83	56	56	56	33	39	22
Hillcrest	98	98	98	94	96	88	87	81	89	87	88	87	63	87	50
Jefferson	99	93	96	93	93	81	81	72	87	85	89	84	51	76	44
Kimball	99	94	96	91	93	80	82	66	89	88	89	80	54	70	41
Lincoln	94	90	86	73	75	57	58	38	66	59	68	43	23	39	20
Madison	91	86	71	67	71	52	52	48	67	62	71	33	33	43	24
N.Dallas	96	88	91	84	80	66	67	49	75	66	77	62	35	50	34
Pinkston	93	86	80	67	71	55	50	27	56	58	64	40	22	39	21
Roosevelt	97	88	85	69	71	60	55	34	63	59	62	38	24	39	17
Samuell	98	94	95	88	90	80	80	67	85	87	88	83	64	66	29
Seagoville[b]	97	92	89	89	84	80	82	65	82	84	87	74	47	65	31
Skyline	98	96	96	91	92	80	81	71	85	84	90	79	56	78	44
S.Oak Cliff	95	90	88	71	74	53	56	39	69	52	56	39	21	32	20
Spruce	98	89	93	84	82	73	72	51	72	74	79	66	37	55	23
Sunset	98	95	96	91	88	80	77	60	79	83	87	74	45	66	40
Trans.Magnet[a]	100	100	100	100	100	100	50	100	100	50	50	50	50	50	0
White	100	98	98	95	98	92	92	90	94	94	97	92	80	90	56
Wilson	97	91	92	83	86	75	72	57	78	78	84	67	44	63	35
Subdistrict															
E.Oak Cliff	96	89	87	70	72	56	56	37	66	55	58	38	22	35	19
Northeast	98	96	96	91	92	81	82	71	86	84	89	80	58	77	43
Northwest	98	94	94	89	91	81	80	71	84	83	87	79	57	75	45
Southeast	97	91	92	83	83	71	72	55	78	76	81	67	41	56	25
Southwest	98	94	94	86	85	75	74	57	79	79	83	69	45	62	34
District	98	93	93	86	87	75	75	62	81	78	82	71	48	65	36

[a] Only two students took the tests at the Transportation Magnet.
[b] Seagoville is included in the Southeast Subdistrict.

3. The percentage of students correctly answering each of the items from the two tests was obtained for curriculum review and are not presented here. From a review of the percentages, it appears that 6 to 8 reading items need to be revised. Six to 10 mathematics items need revision.

4. The most obvious observation from the preceding tables is that the schools having a predominantly Black and Mexican American population performed more poorly than schools with a majority of Anglo students. The average percentage of students from the 10 "minority" high schools who mastered all 15 objectives was 33% and 5% for reading and mathematics, respectively. On the other hand, the average percentage of students from the predominantly "majority" high schools who mastered all 15 objectives was 76% and 24% for reading and mathematics, respectively. The differences in the percentages suggest that concern must be given to the specific content of the test items. Although the items do not appear to be ethnically or culturally biased for the purpose of determining the literacy status of students, test bias must be considered.

   If test bias is not identified as the reason for the lower scores of students in the predominantly minority schools, then questions should be explored. Do these schools have the least experienced teachers? Is teacher turnover greater in the predominantly minority schools than in the predominantly majority schools? Do the minority schools have a student mobility problem? Can teachers in the minority schools relate well with students who may come from a different background? What is the student-teacher ratio in these schools? If there is evidence of teacher/student frustration, is it more apparent in the predominantly "minority" schools than in the "majority" schools?

5. Several alternative strategies for classfying student literacy status have been identified. Three of the strategies are mentioned here.

   a. Students may be classified as literate if they correctly answer two of three items for each of the 15 reading and mathematics objectives. This means that all objectives must be mastered.

   b. The District can set a cut-off point of 12, 13 or 14 objectives that must be mastered for establising literacy status. This allows for inadvertant errors on the student's part while taking the tests.

   c. The District can set a cut-off point less than the maximum of 15 objectives for the first few years, then raise the cut-off point in later years.

6. Eighteen of the 22 senior high schools responded to the opinionnaire. Six of them specifically stated that teachers felt the tests were too easy--too simple. The thinking of the teachers regarding the tests should be viewed in light of the test results of the schools. The percentage of students in these six schools who answered 2 of 3 items per mathematics

objective and who could be classified as literate was 11%, 17%, 22% 24%and 34% if the criterion for literacy is the mastery of 15 objectives. This could mean that teachers grossly overestimated the ability of the students. The difference in teacher perception and student performance may have many meanings. One meaning may be a problem of student motivation. Twelve of the 18 high school administered the tests to all of their seniors at one time in the auditorium, lunchroom or study hall. Such a testing procedure is not conducive to motivating students. A large number of students (100-300) being tested in the same area does not allow the administrator an opportunity to gain sufficient rapport with students to optimally motivate the. Further, the testing areas themselves take away from the seriousness of the test. As one school reported, such areas are "too conducive to visitation." Moreover, in 8 of the 18 schools the reported length of the mathematics testing sessions ranged from 30 to 50 minutes. The minimum estimated testing time for the test is 60 minutes and instructions stated that all students should be given an opportunity to attempt all items. It is fairly obvious that school personnel did not adhere to instructions.

Additional Information:

ST77-119-9-12 Validation of the Secondary Literacy Testing Program in Reading and Mathematics: 1976-77, 1977, Robbie G. Davis, Jerome Barker.

ST77-119-8-12 Validation of the Secondary Literacy Testing Program in Reading and Mathematics: 1976-77, 1977, Robbie G. Davis.

IR77-011-3-12 Functional Level Performance Profiles 1976-77: Reading and Mathematics, 1977, James A. Meier.

76-848 Literacy Testing Program In Reading and Mathematics, 1976, Robbie G. Davis, 249 pages.

Abstract

A Report on the
Construction and Empirical Investigation
of the Reliabilities of the
School Perceptions Scales

Evaluator: C. LaVor Lym

Purpose of the Evaluation: The study was designed to construct and empirically investigate the reliability of an instrument to assess the self-concepts of elementary school children.

Sample: Four schools participated in the study: Herbert Marcus, Alex Sanger, Anson Jones, and Oran M. Roberts. Their selection was based on the socioeconomic level of their student populations. The actual numbers of students who responded to each of the instruments used in the study were as follows:

Instrument	Grade Levels	N
Self-Concept Scale	K and 1	145
Attitude-Toward-School Scale	K and 1	164
Reading Sentiment Scale	K and 1	97
Self-Concept Scale	2 and 3	121
Attitude-Toward-School Scale	2 and 3	126
Reading Sentiment Scale	2 and 3	132
Self-Concept Scale	4 through 6	163
Attitude-Toward-School Scale	4 through 6	162
Reading Sentiment Scale	4 through 6	165

Evaluation Design: The study consisted of the following phases: (a) a comprehensive review of the psychometric literature regarding the assessment of self-concepts and attitudes of children, (b) construction of the instrument, and (c) a pilot test of the instrument to determine its utility and reliability.

The School Perceptions Scales (SPS) were designed by the investigator for the measurement task. The SPS were self-report instruments defined by graphic, alternate-choice items. Three scales were developed: the Self-Concept Scale, the Attitude-Toward-School Scale, and the Reading Sentiment Scale.

After selecting the schools, specific classrooms were selected randomly and assigned a particular scale of the SPS. A testing packet was then prepared for each classroom teacher. Teachers administered the SPS from April 8 through April 10, 1974. Analysis of the data involved computing the following statistics for the items comprising each scale: mean, standard deviation, and item-scale correlation. The number of items in each scale was then reduced based on item-scale correlations, to yield a more homogeneous overall scale. As measures of reliability, Coefficient α's were computed. Frequency distributions were also examined to determine if responses to the SPS conformed to the usual distributional assumptions underlying analysis of variance procedures.

Evaluation Results: For the most part results were very encouraging. Except for the form of the Self-Concept Scale used in grades 2 and 3, reliabilities of the scales were sufficiently high to warrant their use in experimental studies where ingroup comparisons are to be made. An examination of the frequency distributions, however, indicated that composite scores on nearly all scales were negatively skewed. The scales used in grades K and 1 in particular showed an extreme, negative skew.

The following table summarizes the results obtained from the tryout data. The division of items into response-set and construct categories stemmed from the design of the instrument. Response-set items, or items which were believed to elicit negative responses, were included to counteract the tendencies of young children to give socially desirable responses or establish a fixed response-set.

In the sense that all psychometric properties of the SPS were not investigated, the study did not provide complete validation of the newly developed instruments. Therefore, consideration should be given to the following topics of investigation to complete the validation of the SPS.

1. A suitable transformation of SPS scores may be sought to more closely approximate an underlying normal distribution.

2. Conduct an investigation to determine the weighting factors for scale items which would provide greatest discrimination between high- and low-scoring groups.

3. Replicate the tryout of the Self-Concept Scale, Level II, to determine if the comparatively low reliability was simply an extraneous finding.

4. Design and implement a study to examine other psychometric properties of the SPS including test-retest reliability and concurrent validity.

5. Using the final forms of the SPS, a study should be conducted to determine the cross-validity of the instruments.

6. The separate scales of the SPS should be combined into a single form for use in experimental investigations where data on all constructs are to be collected.

Results Obtained from a Pilot Administration
of the School Perceptions Scales

	Original No. of Items		Final No. of Items		Coefficient α
Scale[a]	Response Set	Construct	Response Set	Construct	(Final Construct Items)
Self-Concept Scale I	10	20	9	12	0.87
Attitude-Toward-School Scale/I	10	20	9	12	0.85
Reading Sentiment Scale/I	10	20	9	12	0.85
Self-Concept Scale/II	12	24	11	18	0.48
Attitude-Toward-School Scale/II	12	24	11	18	0.74
Reading Sentiment Scale/II	12	24	11	18	0.80
Self-Concept Scale/III	14	28	12	20	0.75
Attitude-Toward-School Scale/III	14	28	12	20	0.89
Reading Sentiment Scale/III	14	28	12	20	0.87

[a] Level I = K, 1
Level II = 2, 3
Level III = 4, 5, 6

Additional Information:

74-270 Construction and Empirical Investigation of the Reliabilities of the School Perceptions Scales, 1974, C. LaVor Lym, 19 pages.

74-295

Abstract

The Validation and Utilization of Measures of A-State and A-Trait Anxiety with Elementary-level Disadvantaged Children

Evaluator: James P. Papay

Purpose of the Studies: The present report presents two basic research studies undertaken by the Department of Research, Evaluation, and Information Systems (R&E) to (a) demonstrate to District decision makers the potential wealth of information available to them through carefully articulated research/evaluation endeavors; (b) develop appropriate instrumentation, especially in the affective area, which has been virtually unavailable for research and evaluation purposes; (c) ascertain the normative and psychometric characteristics of a sample of the District's educationally deprived, urban pupils; (d) determine the benefits to District decision makers of more fully scrutinizing evaluation data from pertinent theoretical frames-of-reference; and (e) determine the effects of anxiety on achievement in traditional and individualized, multiage classrooms for educationally deprived children from a sample of the District's classrooms.

Sample: Study I employed 2,470 K-4 elementary school children within the Dallas Independent School District (DISD). All children were selected from 30 Title I schools chosen in a stratified manner to ensure representation from the full spectrum of socioeconomic deprivation indices. From grades K-2,568 children were tested individually. From grades 1-2, 380 children were tested in small groups of 5-7 pupils. From grades 3-4, a total of 1,522 children were tested in large groups consisting of entire classrooms. Study II employed 128 high- and low-anxious children from both traditional and individualized, multiage classrooms in the first grade and 104 high- and low-anxious children across both programs in the second grade.

Results of the Studies: Study I demonstrated the feasibility of extending into the lower primary grades instruments for affective measurement which yield valid and reliable results. In addition, normative data and the psychometric characteristics of 2,470 K-4 District children were established as an information base for future R&E efforts which are useful as inputs to the District's decision makers. The direct educational implications of Study I were that an affective test, requiring only minutes to administer, could be employed to diagnose children as high- or low-anxious. This information subsequently might be used by District administrators to assign teacher aides (a scarce and costly resource) to classes where they could have the most educational impact. Memory support, types of reinforcement, and various curricula could then be assigned or used on an empirical basis by classroom teachers (tempered with intuitive judgments, hopefully), eventuating in increased student achievement.

Study II demonstrated the importance of scrutinizing evaluation data more fully by filtering results through selected theoretical paradigms. From an Individualized, Multiage Program (IMP) and Traditional (TRAD) learning environments 128 first graders and 104 second graders were evaluated on criterion-referenced concrete and abstract mathematics tests based specifically upon predictions from Trait-State Anxiety Theory. In general, high trait-anxious children exhibited higher situational anxiety levels and performed worse than did low trait-anxious children, regardless of program. These findings generalized to both first- and second-grade children in both learning environments. The IMP children showed lower anxiety compared with TRAD children. However, on the more difficult tasks, their reduced IMP anxiety was associated with poorer IMP performance compared to that of TRAD children.

The results of Study II suggested that the individualized, multiage program was successful in reducing overall levels of state anxiety and in eliminating the usually found performance differences between high- and low-anxious children. However, the cumulative net IMP effect was to produce a decrement in performance similar to those found for high-anxious children in stressful, ego-involving situations. In essence, IMP children were happier (less stressed) but performed worse. The direct educational implication was that simple reduction of anxiety as a function of individualizing curricula may not lead to optimal learning outcomes. Innovative curricula may not provide sufficient motivation for learning and task perseverance. Finally, Study II also suggested that memory support, positive reinforcement, and allocation of teacher aides might be more beneficially allocated to high-anxious children to facilitate achievement. Future research should clarify these issues.

Additional Information:

74-295 The Validation and Utilization of Measures of A-State and A-Trait Anxiety with Elementary-level Disadvantaged Children, 1975, James P. Papay, 46 pages.

73-158 ESEA Title I Multiage Classes Program, 1973, James P. Papay, 68 pages.

74-256

Abstract

School Attitude Inventory: Reliability, Validity, and Scoring Norms

Evaluator: Robert P. Grobe

Objectives of the Program: During the 1973-74 school year, the Dallas Independent School District (DISD) financed the Secondary Reading Project (SRP) in six nontargeted high schools and 23 junior high schools. Simultaneously, the Emergency School Aid Act (ESAA) financed SRP in 12 targeted high schools. SRP attempted to plan, develop, implement, and evaluate a continuous program of reading instruction for secondary students seriously deficient in basic reading skills. Students in the 12 ESAA-SRP targeted high schools had the teamwork services of a full-time reading teacher, teacher aide, and paid tutor in each classroom. They also had access to the services of a building resource teacher, area reading-resource teacher, program coordinator and, in some cases, school volunteers.

Purpose of the Evaluation: The purpose of this study was to determine empirical reliabilities and validities for the School Attitude Inventory (SAI). The SAI was designed to provide a general assessment of attitude toward school of secondary students with limited reading skills, such as those students involved in SRP. Data which it might provide would hopefully be useful in implementing SRP throughout DISD. The SAI contained 16 items and could be administered in approximately ten minutes.

Sample: The SAI was administered to a total of 165 students in 10 classrooms in different high schools.

Evaluation Design: The evaluation design used for this study was basically a posttest only with a comparison group:

$$X_H O_1$$

$$X_L O_2$$

The observations (O_1, O_2) consisted of the SAI administration. X_H was a group of students that teachers rated as having the best attitude toward school, and X_L was a group rated as having the worst attitude toward school. Reliability was determined by calculating Cronbach's Coefficient Alpha for the SAI. Validity was determined by comparing SAI scores for X_L and X_H by analysis of variance. The major questions of interest were:

1. Is reliability of the SAI adequate for use in evaluating SRP?

2. Is the validity of the SAI adequate for use in evaluating SRP?

Evaluation Results:

1. The measure of reliability was calculated to be 0.70 for the SAI.

2. In terms of validity, teacher assessment of a student's attitude toward school generally agreed with that student's score on SAI.

3. Reliability and validity measures in this study suggest that the SAI is acceptable for group assessment; however, it should be used very cautiously for individual diagnosis.

4. No significant differences in attitude toward school were found between means for differing ethnic and sex groups. However, with a less stringent statistical criterion (i.e., $\alpha = 0.10$), a trend is demonstrated which suggests possible differences between means for differing sex and ethnic groups. The following table shows raw score data for the sample.

School Attitude Inventory Means by Ethnicity and Sex

Anglo		Mex. Am.		Negro		Other
31.9		31.5		34.0		34.3
M	F	M	F	M	F	
31.9	32.0	30.7	35.7	33.6	34.6	
(27)[a]	(9)[a]	(17)[a]	(3)[a]	(65)[a]	(39)[a]	(4)[a]

Mean for all subjects - 33.0

Standard Deviation = 4.32

[a] Number of subjects

Additional Information:

74-258	Reading Attitude Inventory: Reliability, Validity, and Scoring Norms, 1974, Robert P. Grobe, 45 pages.
74-257	Context Evaluation Report: A General Description of the Secondary Reading Project, 1974, Robert P. Grobe, 12 pages.

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74-256 School Attitude Inventory: Reliability, Validity, and Scoring Norms, 1974, Robert P. Grobe, 12 pages.

74-255 Evaluation Report for the ESAA Secondary Reading Project, 1974, Robert P. Grobe, 182 pages.

74-218 Evaluation Design for the Secondary Reading Project 1973-74, 1974, Robert P. Grobe, 59 pages.

74-258

Abstract

Reading Attitude Inventory: Reliability, Validity, and Scoring Norms

Evaluator: Robert P. Grobe

Objectives of the Program: During the 1973-74 school year, the Dallas Independent School District (DISD) financed the Secondary Reading Project (SRP) in six nontargeted high schools and 23 junior high schools. Simultaneously, the Emergency School Aid Act (ESAA) financed SRP in 12 targeted high schools. SRP attempted to plan, develop, implement, and evaluate a continuous program of reading instruction for secondary students seriously deficient in basic reading skills. Students in the 12 ESAA-SRP targeted high schools had the teamwork services of a full-time reading teacher, teacher aide, and paid tutor in each classroom. They also had access to the services of a building resource teacher, area reading-resource teacher, program coordinator and, in some cases, school volunteers.

Purpose of the Evaluation: The purpose of this study was to determine empirical reliabilities and validities for the Reading Attitude Inventory (RAI). The RAI was designed to provide a general assessment of attitude toward reading of secondary students with limited reading skills, such as those students involved in SRP. Data which it might provide would hopefully be useful in implementing SRP throughout DISD. The RAI contained 16 items and could be administered in approximately ten minutes.

Sample: The RAI was administered in 10 classrooms in different high schools to a total of 168 students.

Evaluation Design: The evaluation design used for this study was basically a posttest only with a comparison group:

$$X_H O_1$$

$$X_L O_2$$

The observations (O_1, O_2) consisted of the RAI administration. X_H was a group of students that teachers rated as having the best attitude toward reading. X_L was a group rated as having the worst attitude toward reading. Reliability was determined by calculating Cronbach's Coefficient Alpha for the RAI. Validity was determined by comparing RAI scores for X_L and X_H by analysis of variance. The major questions of interest were:

1. Is reliability of the RAI adequate for use in evaluating SRP?
2. Is the validity of the RAI adequate for use in evaluating SRP?

Evaluation:

1. The measure of reliability, coefficient Alpha, was calculated to be 0.81 for the RAI.

2. In terms of validity, teacher assessment of a student's attitude toward reading generally agreed with that student's score on RAI.

3. Realiability and validity measures in this study suggested that RAI is acceptable for group assessment; however, it should be used very cautiously for individual diagnosis.

4. Significant differences were found between the means on the RAI for males and females. No significant differences in attitude toward reading were found between ethnic groups.

The following table shows raw score data for the sample.

Reading Attitude Inventory Means by Ethnicity and Sex

Anglo		Mex. Am.		Negro		Native Amer.	Other
30.9		29.4		39.8		29.3	35.0
M	F	M	F	M	F		
29.2	33.7	27.5	30.6	29.8	31.9		
(38)[a]	(23)[a]	(16)[a]	(23)[a]	(30)[a]	(25)[a]	(3)[a]	(4)[a]

Mean for all subjects = 30.6

Standard Deviation = 5.47

[a] Number of subjects

Additional Information:

74-258	Reading Attitude Inventory: Reliability, Validity, and Scoring Norms, 1974, Robert P. Grobe, 45 pages.
74-257	Context Evaluation Report: A General Description of the Secondary Reading Project, 1974, Robert P. Grobe, 12 pages.
74-256	School Attitude Inventory: Reliability, Validity, and Scoring Norms, 1974, Robert P. Grobe, 12 pages.

74-255 Evaluation Report for the ESAA Secondary Reading Project, 1974, Robert P. Grobe, 182 pages.

74-218 Evaluation Design for the Secondary Reading Project 1973-74, 1974, Robert P. Grobe, 59 pages.

RE77-002-1-5

Abstract

PROJECT: Western Michigan University Graduate Program

Manager: William J. Webster

The Western Michigan University Graduate Program was approved by the Board of Education, and conducted during the 1976-77 school year. The course selection was:

Dates	Course	Principal Instructor	Format
Sept. 7 to Oct. 15	Educational Leadership	Webster	6 three-hour presentations and a final examination.

Text: None. Materials presented by individual lecturers.

Subject matter: DISD Research, Evaluation, and Information Systems, Organizational Theory, Introduction to the Computer, Operations Research, Planning Systems, Instructional Analysis.

Dates	Course	Principal Instructor	Format
Oct. 18 to Dec. 3	Theory of Evaluation	Stufflebeam Carter	4 three-hour presentations/ tutoring (Carter); Stufflebeam - Friday night and Saturday, October 22 and 23, and Thursday night, Friday night, and Saturday, Nov. 4, 5, and 6. Final examination.

Text: Stufflebeam, et al. Educational Evaluation and Decision Making. Itasca, Illinois: Peacock, 1971.

Worthen, B. R. and Sanders, J. R. Educational Evaluation: Theory and Practice. Worthington, Ohio: Charles A. Jones, 1973.

Subject matter: A comprehensive review of major theories and models of educational evaluation emphasizing the work of leading contributors to the field.

Dates	Course	Principal Instructor	Format
Dec. 6 to Jan. 21	Introduction to Research	Sanders Lym	4 three-hour and 2 four-hour presentations/ tutoring (Lym); Sanders - Friday night and Saturday. Dec. 10 and 11 and Jan. 7 and 8. Final examination.

Text: Campbell, D. T. and Stanley, J. C. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally, 1966.

Kerlinger, F. N. Foundations of Behavioral Research (2nd edition). New York: Harper and Row, 1970.

Subject matter: Emphasis on sources of research, interpretation of research reports and abstracts, techniques of conducting literature searches, and skills in research writing.

Jan. 21 to March 4	Measurement I	Bunda Hebbler	4 three-hour presentations/ tutoring (Hebbler); Bunda - Friday night and Saturday, Jan. 21 and 22, February 4 and 5. Final examination.

Text: Cronbach, I. J. Essentials of Psychological Testing (3rd edition). New York: Harper and Row, 1970.

Harris, C. W., Alkin, M. C., and Popham, W. J. (eds.) Problems in Criterion-Referenced Measurement. Los Angeles: UCLA Center for the Study of Evaluation, 1974.

Dates	Course	Principal Instructor	Format
Jan. 21 to March 4 (Continued)			

Subject matter: A survey of classical and emergent forms of testing in education including norm-referenced, criterion-referenced, and objective-referenced measurement. Students study principles and procedures of test construction and learn to evaluate various types of tests.

March 7 to April 15	Data Analysis I	Chadbourn	12 three-hour presentations, a midterm and a final examination.

Text: Glass, G. V. and Stanley, J. C. Statistical Methods In Education And Psychology. Englewood Cliffs, New Jersey: Prentice-Hall, 1970, Chapters 1-14

Ferguson, G. A. Statistical Analysis In Psychology And Education, 3rd edition. New York: McGraw-Hill, 1971.

Subject Matter: Introduction to statistical techniques used for decision-making in educational research and evaluation. Topics include measures of central tendency, variability, and relationship, as well as probability and statistical inference.

April 18 to May 27	Data Analysis II	Applebaum	12 three-hour presentations, a midterm and a final examination.

Test: Glass, G. V. and Stanley, J. C. Statistical Methods In Education And Psychology. Englewood Cliffs, New Jersey: Prentice-Hall, 1970. Chapters 15-19.

Winer, B. J. Statistical Principles In Experimental Design, 2nd edition. New York: McGraw-Hill, 1971.

Dates	Course	Principal Instructor	Format
April 18 to May 27 (Continued)			

Subject matter: Introduction to analysis of variance and experimental design in educational research and evaluation. Topics include a review of statistical inference and applications of factorial, nested-factorial, and post-hoc techniques in design and data analysis.

June 6 to July 15	Survey Research	Krueck	12 three-hour presentations, a midterm and a final examination.

Text: Babbie, Earl I. Survey Research Methods. Belmont, California: Wadsworth, 1973.

Selltiz, Claire et al Research Methods In Social Relations. New York: Holt, Rinehart, and Winston, 1962.

July 18 to August 26	Computor Applications In Statistics	Lym	12 three-hour presentations, two examinations, and eight projects.

Text: Glass, G. V. and Stanly, J. C. Statistical Methods In Education And Psychology. Engewood Cliffs, New Jersey: Prentice-Hall, 1970.

SPSS Manual

Subject Matter: Use of the SPSS computer package in the analysis of data.

Dates	Course	Principal Instructor	Format
July 18 to August 26 (Continued)			

Subject matter: Sampling techniques, questionnaire construction, data collection, and analysis of survey research data.

In addition to the above courses, students earned 6 hours of internship credit. This credit was given for on the job training. Students were required to submit a written report of their internship experience.

This program has produced a number of trained masters level personnel for the Department of Research, Evaluation, and Information Systems. Twelve Anglos, eight Blacks, and one Mexican-American participated in the program. The majority are projected to complete degree requirements by December, 1977.

Abstract

Citizenship Needs: A Review

Evaluator: Robbie G. Davis

Purpose of the Review: The Department of Research, Evaluation, and Information Systems of the Dallas Independent School District (DISD) initiated this study to examine the possible need for criterion-referenced tests in citizenship education. The study involved a review of relevant literature and an examination of DISD teacher responses to a citizenship questionnaire. The results were intended to provide information regarding (a) the present status of citizenship education, (b) a possible direction in which citizenship training could be most effectively implemented, and (c) the question of whether or not criterion-referenced tests were warranted.

Sample: Data were sought from one social studies teacher in each of the DISD elementary and secondary schools. A total of 179 teachers received questionnaires.

Review Method/Design: It was felt that input from all schools within the District was necessary because of the nature of the study. To obtain this input, a questionnaire was sent via intradistrict mail to one social studies teacher in each of the schools on February 17, 1976. Teachers were requested to answer the following five questions:

1. What grade(s) do you teach?
2. Is citizenship education stressed in your school?
3. Do you have or can you obtain some tests in citizenship education?
4. Would you or your colleagues like to have an item bank of citizenship or civics questions?
5. If citizenship tests were available, would you be inclined to use them to assist you in your instruction?

Teachers returned the questionnaires via the intradistrict mail system. Questionnaires returned after March 8, 1976, were not processed. A 69 percent return rate (N=124) was achieved.

Review Results: The review of relevant literature provided information that suggested the need for an expanded and improved curriculum in citizenship education. One result of a needs assessment study by Lym (1975) discovered that among the nine skill areas in social studies, citizenship was perceived as needing the most improvement in the DISD. In other words, among nine skill areas the greatest discrepancy between what was being emphasized and what should be emphasized in teaching occurred in the area of citizenship. Suggestions for curriculum development were also found in the literature; however, since teaching citizenship concepts has little if any effect upon

the development of citizenship skills, the primary suggestion was that training should be based upon a laboratory or action-centered approach.

Responses from the questionnaire survey were tabulated, and the results were as follows:

1. A minority of the respondents (28%) stated that citizenship training was not stressed in their schools.
2. Only 6 percent of the teachers had or could obtain tests in citizenship education.
3. The majority of respondents (89%) would like to have an item bank of citizenship questions.
4. Most of the teachers (85%) indicated that they would be inclined to use citizenship tests if they were developed.

Additional Information:

76-906(719)	Citizenship Needs: A Review, 1976, Robbie G. Davis, 29 pages.
75-562	Systemwide Assessment 1974-75, Students and Educators, 1975, C. LaVor Lym, 48 pages.

76-801

Abstract

Half-day vs. Full-day Kindergarten:
A Review of the Literature

Evaluator: L. Nicora Simmons

Purpose of the Review: Half-day or full-day kindergarten — which provides the more effective program? The Dallas Independent School District (DISD), like many school districts throughout America, is concerned with the answer to that question. This review attempted to define the current literature's portrayal of the general milieu surrounding the two types of kindergarten programs as well as to describe specific evaluations and comparisons of the two. It was hoped that such a juxtaposition of the general milieu and specific evidence might contribute information to help inform and facilitate judgment as to whether the half-day or full-day kindergarten program is more suitable to a particular district's circumstances, policies, and philosophy.

Review Method/Design: This review of the literature first briefly defined those elements of four larger issues which impinge upon the question of half-day, full-day kindergarten: (a) the current redefinition of the American "family" and the present social trend toward transferring to elementary schools and day-care facilities what were formerly "family" responsibilities; (b) disputes over the relationship between the rate of children's intellectual and physical development and the content of early childhood education courses; (c) problems of curriculum revision and the possibility of revised kindergarten programs' necessitating revision of all elementary curricula as well as intensive inservice programs for the training of elementary teaching staff; and (d) the ordering of school priorities and their relationship to the assumption of responsibilities other than academic instruction.

The review then focused upon seven studies which evaluated and compared half-day and full-day kindergarten programs. Their data included lists of advantages and disadvantages compiled by evaluators, some cognitive test data, and some questionnaire responses of parents, teachers, and administrators, regarding the two programs. General opinions of various educators and authors regarding half-day, full-day kindergarten programs were also included in this part of the review.

Some data comparing the cost-effectiveness of the two types of programs were also included. The unique needs of individual school districts prohibited the presentation of any conclusive data.

Finally, the half-day and full-day kindergarten programs and present developments and modifications of current programs were considered in light of educational equality issues and charges advanced against the public schools' level of concern with early childhood education.

Review Results:

1. The American "family" has in fact been redefined by the present society. It has retreated from its starring role into the wings of the American preschool stage. Candidates for its role include the public schools and the variety of legal and extra-legal day-care facilities. A school's ostensible choice of half-day or full-day kindergarten is almost inevitably tied to a less ostensible but equally firm committal as to the extent to which that school believes the development of children prior to the age of six is related to their schooling and the extent to which that school is able or wants to be involved in shaping that development.

2. Disputes still rage regarding the rate of children's development, particularly concerning the age at which a child should receive "intellectual stimulation" or academic instruction. Actual practice, however, appears to be tending toward those who advocate early stimulation; that is, the arguments now rage less around the ages of 7-8 than around 3-4. That preschooling for five- and six-year-olds is beneficial is generally assumed. However, it is simultaneously assumed that, despite specification of ages 5-6, there must always be some flexibility regarding the age at which the individual child is initiated into school learning situations.

3. The trend toward increasing the cognitive component of either half-day or full-day kindergarten curriculum has obvious repercussions upon the curricula in succeeding grades. Curriculum changes in turn affect the elementary teaching staff, often necessitating intensive inservice programs to present new methods, procedures, and curriculum. As a result, opposition and recalcitrance may emerge among teachers in the upper elementary levels.

4. Schools are being pounced upon to take over formerly parental responsibilities, such as before- and after-school care. It is perhaps flattering that the public trusts the schools to dam up the flood of loosed parental responsibilities more than they trust a governmental watergate to stem the tide. And it is understood that many schools already have the actual physical facilities available for such care, facilities that are unused much of the day, as well as personnel and administrative machinery geared to handling child- and family-oriented programs. Nevertheless, most schools have a primary objective: superior academic instruction. Insofar as that is a primary objective, school districts have the right and responsibility to decide whether or not their assuming additional responsibilities and objectives seriously endangers the achievement of that primary objective or, conversely, whether or not their not assuming such responsibilities seriously affects or detracts from the achievement of that principle objective.

5. The literature reveals a strong predilection toward full-day kindergarten programs. At best, the half-day programs appear as the lesser of two evils: preferable to over-sized, full-day kindergarten classes. The literature's lists of full-day advantages far outweigh those of half-day advantages. All seven of the studies comparing half-day to full-day programs or half-day (every day) to full-day (alternate day) programs seemed to favor the full-day kindergarten. Comparisons of the cognitive effects of the two programs could not be found, but analyses of cognitive data for full-day kindergartners suggest that such programs are effective, relative to national norms. Two studies indicated that parents, principals, and teachers tended to favor the full-day program.

6. Cost-effectiveness data for full-day and half-day programs could not really be generalized since the needs of individual school districts varied so greatly. Transportation appeared to be a major variable. Minnesota and Hawaii found full-day kindergarten programs to be more cost-effective because of transportation savings achieved. The Hawaii study, however, claimed that full-day programs cost more than serving the same number of children in two half-day sessions. On the other hand, for some districts the extra cost of full-day programs is apparently offset by the increased amount of the state aid allowance for full-day kindergartners as opposed to that allowed for half-day kindergartners.

7. Current data were too limited to compare the extent to which full-day and half-day kindergarten sessions have been adopted throughout America.

8. The present day-care crisis in America as well as the weakening of family influence upon children's preschool development has provoked not only charges against school systems' supposed lack of interest and involvement in preschool child development but also concern about the possibility of the schools' attitude increasing inequality of educational opportunity, not for children of high-income or poverty-level families but for children of families too poor to afford quality day care but not poor enough to be eligible for subsidized day care. Such charges are not absolutely fair. The literature reveals current experiments and development of school programs which offer preschool, elementary, and/or day care in one setting. Legislation such as that of New York State and California express concern with public preschool education and day care. Individual administrators and teachers constantly voice their solicitude in the literature. And the current analyses and decisions regarding the adoption of half-day or full-day kindergarten programs further evidence the public schools' concern for early childhood development.

Additional Information:

76-801 Half-day vs. Full-day Kindergarten: A Review of the Literature, 1975, L. Nicora Simmons, 54 pages.

Abstract

Effects of Educational Technology:
A Review of the Literature

Evaluator: L. Nicora Simmons

Objectives of the Program: Definitions of the objectives of educational technology are often confused and conflicting. David E. Bell and Harold Howe II (1973) of the Ford Foundation suggest that the objectives are multiple:

> They include: to improve instruction (qualitative); to educate more people (quantitative); to learn about learning (research); to reform the curriculum (substance); to improve the process (method); and to articulate the system (structure). (p. ix)

A more general definition of the objectives, implied by their list and reiterated variously in the literature, states that educational technology seeks to enrich and to improve education and, through individualization of instruction, to contribute to equalization of educational opportunity.

This review suggested that educational technology seeks to accomplish these objectives in two ways: (a) via utilization of specific technological media or combinations thereof to achieve specific educational objectives defined by particular educational needs; and (b) via planning which utilizes media, people, and all other existing resources to achieve specific educational objectives defined by particular educational needs. These two ways parallel the two definitions of educational technology which were articulated by the Commission on Instructional Technology (1970) and which are in common usage: (a) educational technology as "the media...used for instructional purposes alongside the teacher, textbook, and blackboard"; the specific items of hardware and software; and (b) educational technology as "a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives...and employing a combination of human and nonhuman resources to bring about more effective instruction" (p. 5).

Purpose of the Review: This review of the literature attempted to cover current opinions regarding the specific effects and effectiveness of the individual technological media in relation to primary and secondary school instruction, as well as current overviews of the effects and effectiveness of the combined media and technological planning in relation to the entire learning process in primary and secondary schools. It attempted to supply answers, or reasonable approximations thereof, to such questions as the following:

1. Has research established conclusively the positive effects of technological media in primary and secondary schools?
2. What, in fact, are the effects of technological media in primary and secondary schools?
3. What factors in primary and secondary schools mitigate for or against effective utilization of technological media and technological planning?

4. On what grounds are current criticisms of public school systems' utilization of educational technology based?

5. What current educational issues are associated with effective implementation and utilization of educational technology?

Review Method/Design: Originally this review was designed to follow the usual model for reviews of the literature: summarize the accumulated studies and draw whatever conclusions seem viable. However, research eventually discovered Stuart Wells' (1973) "Evaluation of the Effectiveness of Instructional Technology" and the Stanford Research Institute (SRI) analysis of film research, both in Technology in Public Elementary and Secondary Education: A Policy Perspective (Kincaid, McEachron, & McKinney, 1974). Examination indicated that their summaries of the research were reliable, extensive, and complete. To avoid time-wasting replication, a second method was then adopted: whenever applicable, the Wells and SRI summaries of the literature were embodied into this review. Research time was then more effectively spent updating the summaries, comparing their analyses with others, and drawing whatever conclusions seemed indicated. This method was not applicable to all sections, for example, the survey of the amount of technological media in the schools, the analysis of technology's cost-effectiveness. Neither Wells nor SRI was concerned with these issues. In those cases, the original model was used: data were summarized and conclusions drawn.

Each section, then, contains summary data from the sources, using as much as possible their own words so that not only their data but their tones and attitudes would be conveyed. It was assumed that tone and attitude are as important factors as data themselves in any analyst's presentation. Wells, for example, is very pro CAI*, particularly its usage in compensatory education; the Rand Corporation is very pro cable television. Excellent and objective as their surveys may be, their pro-ness could color their presentations, and therefore become an important variable in understanding and testing their selection of data and their conclusions. Only their own words could accurately convey their tones and attitudes; therefore the review was well-saturated with quotations. This choice of presentation did not mean to imply bias or falsification on the part of analysts. The word "pro-ness," rather than "bias" or "prejudice," was deliberately selected to avoid that implication. It simply meant to offer the reader a guide in judging any inferential conclusions or opinions an analyst might advance.

Having presented the data, most of the sections and major subsections end with a summary of what seemed to be the viable conclusions and/or trends which the preceding data indicated.

The review was divided into the following sections and subsections:

Section 1. Definition of Educational Technology. A variety of common definitions was weeded out, and the two definitions of the Commission on Instructional Technology specifically delineated in order to clarify and facilitate discussion in the following sections.

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* CAI = computer-assisted instruction

Section 2. Technological Hardware in the Schools: An Inventory. This section attempted to define the extent of technological media adoption and utilization in the schools as well as to discover possible trends implied by such information as to which of the technological media is/are proving to be more effective. It concluded that radio has dropped by the wayside, but general audiovisual media have multiplied in the schools. Thriving standbys are 16mm projectors, slide-filmstrip projectors, tape recorders, individual filmstrip viewers, and overhead projectors. Schools have increased both their accessibility to and their experimentation with television. There were insufficient data regarding national inventories of television hardware. Discussion of the extent and type of television utilization was postponed to section five of the review. A similar situation obtained for computer technology—insufficient inventory data and postponement of further discussion to section five of the review.

Section 3. State of the Research. This section briefly reviewed the present state of the research on the effects of technology, concluding that the quantity of research has increased tremendously. Researchers themselves are the first to point out the plague of n.s.d* studies, the faulty models used, and the lack of quality in much of the research; but, perhaps as a result of researchers' self-criticism as well as public demand, the literature tended to agree that the quality of research has improved and is improving. The literature also indicated that, despite flaws in design, research results could in combination be used to indicate certain truths and trends regarding educational technology.

Section 4. Effects of Technology: The General Media. General summary research results regarding the effects of educational technology on student achievement and student attitude were presented in this section. The section was distinguished from section five insofar as it focused upon the effects of all technological media rather than upon effects associated with any one particular technological medium. The section concluded that overviews of the effects of technology tended in general not to be unfavorable. More specific judgments regarding the effects of technology could be obtained only by turning to the literature regarding the effects of individual technological media.

Section 5. Reviews of the Effects and Effectiveness of the Individual Technological Media. This section dealt individually with four major technological media: (a) radio, (b) film, (c) television, and (d) computers. Present state of hardware development and usage was briefly defined, and available research results regarding the effects and effectiveness of each medium on student achievement/attitude were presented. With regard to each medium, it was concluded that effective implementation and utilization depended upon the needs and present resources of a particular school or school system.

Concerning radio, it was concluded that radio was not dead, but was perhaps much under-utilized in America, as compared with its usage in other countries. The literature seemed to suggest that radio, combined with audiotape recording and cassettes or with television in educasting, might be considered as a serious competitor of the computer, particularly when the cost-effectiveness of both was taken into consideration. The literature further suggested that studies regarding radio's effects upon non-English-speaking students might deserve the consideration of those concerned with bilingual problems in the schools. The fact that teachers are favorable to and readily work with radio suggests that it might be more effective if only because it is utilized more than some sophisticated dust-catching medium which defensive teachers shy away from. Cost is perhaps the most significant factor, certainly so for any school which wishes to piggy-back existing hardware and restrain expenditures while investigating the effectiveness of larger systems of educational technology and training teachers to implement them prior to a full-scale committal to any one or combination of them. A major hurdle which would have to be overcome in considering radio as a potential medium for present utilization would be the sheer embarrassment of a school or school system which would humanly prefer to be identified with more glamorous, sophisticated technological media.

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*n.s.d. Tests comparing the effectiveness of a particular technological medium with that of traditional instruction often conclude that there is "no significant difference," i.e., "n.s.d."

Concerning film, it was concluded that it is difficult to separate the two worlds of film and television, particularly with current developments in videotape promising the best of both worlds. The large film libraries, particularly of experimental films, and editing ease are positive points for film; however, the development of video techniques may absorb these points into the television medium. Cost-effectiveness and logistical questions related to the particular school that is weighing the merits of television and film are the deciding factors. Nevertheless, so far as actual utilization in the schools goes, film still ranks high as one of the most popular and most commonly utilized media.

Concerning television, it was concluded that television has proven its effectiveness as a medium of instruction, a fact which has been recognized for some time by the literature. The literature, however, revealed a tumultuous lack of accord regarding which television system and which of the video subcomponents are best for a particular school or school district. CATV (cable television) is apparently being touted by some formidable proponents. The Rand Corporation literally takes educators by the hand, lecturing them on their tardiness, and leading them step-by-step through the processes of why to get and how to get a CATV franchise. PBTV (public broadcast television) seems to be undergoing healthy internal revolution and introspection and evolving high-quality programming, though the monopolistic relationship between schools and local broadcasting stations appears to have undergone or be in the process of undergoing dissolution. Generally, it was concluded that combinations of the various television systems and subcomponents are most effective. But no easy rule of thumb can be applied. Which system or combination of systems is most effective for a given school or school district depends largely upon the resources and needs of the individual school or school system.

Moving from the effectiveness of the various television systems to the effects of television in the classroom, the literature seemed to indicate that television has proved to be most helpful in teaching low-ability children, more effective in the lower than the higher grades, and more well-liked by pupils and teachers in the lower than the higher grades.

In most cases, familiarity apparently breeds content. The more experience with television, the more the school audience (pupils and teachers) like it. Television has achieved its greatest success in teaching math, science, and history, the majority of studies claimed; but as for social studies, English, foreign languages, and composition, the studies disagreed. Diametrically opposed significant results appeared. No doubt remains, however, as to the potential and actual effectiveness of television as an educational medium. In large part, that effectiveness depends upon the teacher, as does the effectiveness of all the media; but television effectiveness consistently depends upon its combination with other media. And to maintain its effectiveness, television programming must constantly be honed by a testing-revision-retesting process.

Videotape (reel-to-reel; cassette) is the top-runner among television subcomponents. All recognize its enormous potential. Unfortunately, all disagree about the amount of standardization among its manufacturers, about its durability, and about its replication costs. The more economical video disc also contends for popularity, particularly with its lower manufacturing and operating costs, durability, and duplication ease. Again, reports disagree as to its future. Electronic video recording (EVR) and the Super 8 film videoplayer both have active proponents and critics. Slow-scan television, electrowriter, and facsimile offer economical television possibilities via their combination with FM radio. The tumult between proponents and critics prohibits the drawing of any definite conclusions: "one man's pleasure is another man's poison"; caveat emptor.

Concerning computer technology, it was concluded that the consensus seemed to be that CAI/CMI* are valuable educational tools, if they can be made cost-effective. Godfrey (1974) considers the data on CAI/CMI to be too meager to forecast their future. Armsey and Dahl (1973) think their development is still in a primitive state, with CAI being a bit more advanced than CMI. But they are considered to be particularly valuable because of their potential to individualize instruction, such individualization positively affecting not only individual students but also society insofar as it equalizes educational opportunity.

Opinion varied as to how computerized instruction might be applied most effectively so long as there are cost-effectiveness factors which restrict its usage. Evans (1975) suggests it is most effective for low-ability students. Wells (1973) and Jamison et al. (1970) and others stress its effectiveness for compensatory education. However, Godfrey (1974) indicates the opposite pole, saying that computerized instruction has been recognized as being most effectively utilized with the highly gifted student. Butman (1973) and O'Neal (1970) subsume both views, perhaps, by saying it is most effective for special learning needs, whether the top or the bottom of a class. However, Abramson and Weiner (1972) tentatively suggest it might be best utilized with the middle group of ability level, thus freeing the teacher to attend to the special needs of students below or above the middle group.

Again, opinion varied as to the grade levels at which computerized instruction is most effective, much of the literature presenting data on cognitive effects which indicate its superior effectiveness at the lower levels, but some of the literature recording successful cognitive effects at the secondary levels.

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* CAI/CMI = computer-assisted instruction/computer-managed instruction

Student attitudes toward the computer generally seemed to be positive. One study described them as "favorable but realistic attitudes." The only negative aspects recorded are opinions that the computer is not as responsive as a human teacher, and feelings of having no control over the computer. Its superior wisdom, infinite patience, fairness, consistency, and neutrality are among favorable aspects cited by students. Opinion was divided as to whether computerized instruction improves student self-concept and attitude toward learning.

far as its association with particular subjects of learning, there did seem to be a consensus of opinion that computerized instruction is most effective in math and reading instruction.

Cost-effectiveness was a major factor in almost every discussion of computerized instruction. Special-need and compensatory education proponents argued that it is most certainly cost-effective compared with the cost-effectiveness of providing special instruction needed for special groups. Majer (1973) lists several successful and cost-effective applications of computer technology in schools. Excepting its cost-effectiveness for special-need groups, the literature tended to speak of its cost-effectiveness in the future tense, anticipating that rapid development and applications of such projects as PLATO would ultimately lower the costs of CAI/CMI.

The diversity of opinion regarding the effects of CAI/CMI might lead to the conclusion that, yes, the data are too conflicting to predict the future of computerized instruction, and yes, the medium is in a primitive state. Perhaps there is one common denominator, however. Though the literature disagreed as to the type of student with whom and the grade level at which CAI/CMI are most effective, there is, obviously, agreement upon the fact that computerized instruction _is_ effective.

Section 6. Costs of Technology. A sturdy but possibly foolhardy attempt was made to present the literature's analyses of the costs of technological media, with particular emphasis upon the various television systems and computers. The fact that cost-effectiveness varies considerably according to the present resources and needs of a particular school or district made such analysis rather difficult. The section is supplemented by various cost-effectiveness data presented in section five's analysis of the individual media, as well as two appendixes to the review. Appendix A presents in its entirety the chapter on cost-effectiveness, "Budgetary Costs of Instructional Media," from the report on technology by Kincaid et al. (1974). Appendix B presents "Comparison of the Costs of ITFS and Cable Systems" by Carl Pilnick (1973) from one of the Rand Corporation studies on cable television. Both studies establish hypothetical models for which cost data may be postulated and conclusions regarding cost-effectiveness derived.

Apart from the appendixes, the section concludes that nothing short of revolution and reorganization within the present system can change the picture so that technological media can function cost-effectively in the schools. At present, technology is usually an add-on to conventional instruction at extra cost.

The literature indicated that, primarily, cost-effectiveness of technological media depends upon the particular school district's resources, needs, and schedules. Large computer systems, for instance, can be competitive, but only when certain utilization levels are attained. Norwood and Anaheim suggest that television technology can be cost-effective, but such results can be generalized only to those districts bearing marked resemblances to Norwood and Anaheim. Charts and descriptions such as those offered in Appendixes A and B, hopefully, offer a rule by which individual school districts may be custom-measured in order to decide the cost-effectiveness to them of certain technological systems and media.

That CAI can cost-effectively compete with other compensatory math and reading programs seemed strongly indicated.

That SATV (satellite television) with its highly cost-effective potential should be kept in mind by planners in order to avoid future costs of replication and/or obsolescence, was also indicated.

Most unforgettable, however, in reviewing the literature on cost-effectiveness of technology was the restless dissatisfaction of the analysts. Their disgruntlement arises from their frustrated awareness that educational technology can be both effective and cost-effective but not in the present system. Some suggested the need for change. Some demonstrated the need for change. Some irately demanded change and vehemently attacked educators and administrators who are not reorganizing and renovating the system to accommodate technology and allow its growth to proportions that would effectively solve many of the problems confronting education in America. Reading such analysts, one could only conclude that infusion of technology into the vine of education has produced the grapes of wrath for administrators this decade and that instructional technology still hangs on the vine like a raisin in the sun.

Section 7. Two Key Elements Affecting Technology. This section discussed two elements which the literature suggested had exercised and were presently exercising tremendous influence upon the effects and effectiveness of the technological media: (a) the role of the teacher, and (b) the availability of software.

The role of the teacher was seen to be of such obvious importance that it is almost platitudinous and therefore in danger of being ignored. The literature suggested that such has too often been the case with regard to planning and implementation of technological systems. They repeatedly stress the failure of technological innovations where teachers (acting teachers, not ex-teachers) were not involved from conception through planning and implementation stages. The necessity of teacher training in technology is reiterated consistently in the literature. The section concluded that the effects and effectiveness of technological media implemented in a school or system of schools rely almost entirely upon the teachers, their amount of technological training, and the amount of input that acting teachers supply at every stage of planning and implementation. It further concluded that many schools ignored the warnings of the literature as consistently as they ignored the teachers in planning their technological projects, despite lip-service recognition of the need for in-service training of teachers.

The unavailability of software and information regarding sources of software was consistently stressed by the literature. Current reviews suggested that large strides have been made in increasing both quantity and quality of software available to public schools as well as in establishing central points which compile listings and disseminate information regarding the availability of software. The section concluded that available software has increased in both quantity and quality as have sources of information regarding the same, but considerable improvement and development of software and wider dissemination of literature regarding software are still demanded.

Section 8. Summary Overview of the Effects of Technology. The fracturing focus upon the individual technological media was abandoned to once more focus upon the effects of educational technology both as the sum of its technological parts and as a process of learning and planning. The effects of educational technology in relation to the current trend of individualization of instruction are discussed, as well as the concomitant or corollary trend toward multimedia technology. The effectiveness of both are inevitably dependent upon planning. The literature consistently stressed the necessity for two levels of planning, to define which this closing section reverted back to the two levels of definition of educational technology: (a) planning which establishes specific educational needs and specific objectives to be satisfied by utilization of a particular technological medium or combination of media; and (b) master-planning, based upon careful assessment of available hardware, software, personnel and all such present resources, to establish specific objectives related to organization and delineation of the school's or school system's total learning process, to establish requirements and guidelines for proposals of individual technological projects, and to coordinate the individual projects so each contributes to effecting larger technological objectives without inhibiting either each other or the potentials which current technological research suggests are viable future technological developments. This section concluded that such planning on two levels was necessary for effective implementation and utilization of technological media.

Review Results: Having obtained from the literature and presented a plethora of data concerning the effects of technology, the review finally attempted to generalize the conclusions developed in each of its sections into a series of overview conclusions, which are the following:

1. Consideration of the effects of educational technology must take into account the two definitions of educational technology as (a) the

individual technological media, and (b) a learning process involving both media resources and people, so that any proposal for implementation of a particular medium or combination of media may be judged not only according to how its plans measure up to the specific objectives characteristically associated with successful implementation of that medium or combination, but also how its plans jibe with a master plan which specifies the objectives of the entire learning process of a school or school system.

2. Teachers are the key to any effective implementation of technological media. Their opposition guarantees failure of even the best system. Even if adoption of particular technological systems or projects must be postponed, educating teachers in the philosophy and implementation of technology is prerequisite to any successful implementation. No proposed project should be adopted and moved into the stage of implementation until the teachers whom it will affect have been educated to the point where they can contribute largely to the planning and implementation of the project.

3. With regard to budget, educational technology is largely an add-on feature except when it supplants special high-cost programs for special groups. Then it has proved to be very cost-effective, for example, CAI for compensatory education.

4. Many educators and technologists are champing at the bit because they are certain educational technology would prove to be highly cost-effective as well as increasingly effective in other ways if radical changes were made in the present organization of the educational system, for example what Kincaid et al. (1974) refer to as the "custodian function" of the schools, which obviates utilization of the time-saving factor achieved by technology. In this sense, educational technology still retains its revolutionary aspect: more effective usage of it demands a radical reordering of the entire education system.

5. No single media but multimedia approaches offer the most effective exploitation of educational technology. A specific medium may prove to be more effective than traditional instruction in a particular situation, but its effectiveness is enhanced when its relationship to traditional instruction and to other supporting media is taken into consideration.

6. Educational technology's hardware and software have increased in the schools, but effective utilization of the technological media is still often blocked by teachers' lack of training and/or overt opposition, administrators' lack of understanding and/or lack of committal to educational technology, and lack of a master plan defining the specific objectives of the media and their relation to the objectives of the entire philosophy and learning process of the school or school system.

7. Radio, seemingly unsophisticated and rather lost among the plethora of new technological media, might offer several cost-effective alternatives to more expensive media, if a school or school system wished to postpone committal to and investment in the larger technological

systems until it had effectively trained its teachers to the point where they could provide educated input and support for the planning and successful implementation of large-scale technological projects.

8. Thorough assessments of all a school's or district's technological resources--human, hardware, and software--should be made and incorporated into a master plan that allows for utilization of as many existing resources as possible while simultaneously scheduling the creation of more such resources. Such a master plan should take into account all technological resources, from the most unsophisticated to the most sophisticated. It should also take into account the prognostications of research as to what technological developments are anticipated, e.g., national networking via satellite.

9. Educational technology has, in general, proved to be as effective as traditional instruction. Of the technological media, television and computer technology appear to be more effective and accepted by both students and teachers at the elementary level than at the secondary level, though there are particular instances and situations at the secondary level where both have proved to be more effective than traditional instruction.

Additional Information:

76-800 Effects of Educational Technology: A Review of the Literature, 1975, L. Nicora Simmons, 227 pages.

75-635

Abstract

Survey of Large-City School
Administrations: 1974-75

Evaluator: W. R. Young, III

Objectives and Purpose: This study was conducted to obtain data comparing large-city school districts to the DISD on selected factors relating to funding, personnel, and student enrollment.

Methodology and Design: A survey form was mailed to the chief administrators of the 50 school districts located in cities with a population of 300,000 or more. A cover letter from Dr. Nolan Estes, General Superintendent, DISD, requested the addressee to complete the two-page form and return it via an enclosed postage paid envelope. Thirty-four of the 50 school districts returned usable survey forms.

The major evaluation questions were as follows:

1. What were the major characteristics of large-city school districts relating to funding, personnel, and student enrollment?
2. How did the DISD compare to the large-city schools surveyed on these characteristics?

Results:

1. Tables 1 through 7 summarize the data obtained relating to sources of income, fund usage, and demographics, along with derived personnel ratios, administrative support ratios, personnel-student ratios, and per-pupil expenditures.

   Overall, data on sources of income showed that most districts received more local than state funds, except cities with large inner-city populations. There was a great variability in restricted non-federal funds and grants, with some districts having no funds in this category and others receiving over ten million dollars. The largest districts were found to be the greatest beneficiaries of federal funding.

   In all districts, the major recipients of funds for salaries were teachers. Most districts listed school building support personnel as receiving the next largest share of salary monies. The remaining personnel categories received greatly varying portions of the salary expense. In all but two districts, more money was spent for school building supplies than for central administration supplies. Generally, about four times more was spent in the schools than in central administration for supplies.

Elementary school enrollment ranged from 20,426 for St. Paul to over 125,000 for four districts. The latter four (Philadelphia, Chicago, Detroit, Dade County) had the largest junior high enrollments and, with the addition of Oakland, had the largest enrollments in senior high. The number of teachers varied from about 2,000 to 26,000 in Chicago. The next largest districts of Philadelphia and Dade County had about 12,000 teachers. Chicago and Detroit, with large student enrollments, had by far the most central staff administrators. Portland had the least with 35. The State of Hawaii had the most central staff support personnel with 2,918 and St. Paul had the least with 75. Chicago had the largest number of school building personnel in both the administrative and support personnel categories.

The variability in the ratio of school building administrators to school building support personnel was great, ranging from .06 (New Orleans) to .82 (Baltimore) with a mean of .16. All but four districts had more central staff support personnel than central staff administrators. Ratios ranged from 1.27 (St. Paul) to .08 (St. Louis). The mean figure was .50. The number of administrators per 1,000 students went from a very high 10.2 in Duval County to a low of 2.8 in Birmingham. 5.2 administrators per 1,000 students was the mean. In all but two districts teachers composed at least half of the personnel categories represented, with an average of .60. The distribution of school building personnel was fairly uniform averaging between .03 and .04. School building support personnel ratios were widely scattered from .05 (Baltimore) to .40 (Detroit) with a mean of .27. Central staff administrators composed an average of .03 of total personnel. The high figure was .07 in Baltimore; the low figure was less than .01 in Newark. Central staff support personnel ratios exhibited a large range from a low of .02 in St. Paul to a high of .24 for Hawaii. The mean was slightly less than .08. Pupil-teacher ratios varied from 26.1 in Phoenix to 16.2 in Buffalo. Many districts were close to the mean figure of 20.9.

Total per pupil expenditures were highest by a wide margin in Chicago at $2,033 per pupil. The mean figure was $1182. The lowest expenditures were in Birmingham, New Orleans, Fort Worth, and Oklahoma City, all below the $800 level. Variation by source of funding (local, state, federal) was great; the mean local expenditure was $581 per student, the mean state expenditure was $504 per student, and the mean federal expenditure per pupil was $97.

2. Tables 8 through 12 compare the DISD to the responding 34 large-city schools on the obtained and derived characteristics. While inspecting these tables, the reader should recall that the means and ranges for the 34 school districts discussed previously were computed without DISD data in order to avoid biasing the comparisions.

Although the comparisions presented cannot be easily summarized, some points should be noted. While DISD ranked high in local tax revenue with 95 million dollars, it was still well behind the leaders, all of which exceeded the 114 million dollar level. Additionally, due to a recent Texas Attorney General's ruling, Texas schools may not be able to collect some of the local fees included in this category in future years. DISD's relatively high ranking in central staff supplies may perhaps be partially explained by the extensive computer facilities housed at the central building by the district. DISD's relatively low number of school building administrators might be explained by its relatively large number of school building support personnel. On a ratio basis, in fact, DISD had more support personnel per administrator in school district than all districts except New Orleans. At the same time, "cost-efficient" basis, DISD was found to have a relatively small number of administrators (3.5/1000 vs. mean of 5.2/1000) per student overall, one of the lowest ratios obtained. Finally, although Dallas teachers numbered a smaller percentage of total personnel than the sample, the DISD student-teacher ratio was at the mean of the large-city schools sampled.

Sources of In

District	State Tax $(000)	Local Tax $(000)	Other Local $(000)
St. Paul	29,425	23,862	2,453
Memphis	46,999	64,194	2,133
Portland	20,890	61,193	2,593
Boston	87,100	42,900	*
New Orleans	45,836	34,560	472
Phoenix	20,304	22,407	4,410
Long Beach	19,417	54,082	2,730
Milwaukee	61,989	117,690	672
Toledo	20,246	33,215	2,028
Indianapolis	27,946	50,878	1,866
Cincinnati	20,794	49,299	1,950
Baltimore	N.G.	N.G.	N.G.
Philadelphia	260,825	183,205	3,900
State of Hawaii	189,369	N.G.	N.G.
Newark	52,811	51,052	6,797
Nashville	31,377	49,008	4,862
Fort Worth	32,250	29,152	1,745
Oakland	13,744	56,333	N.G.
Buffalo	55,906	40,694	5,750
El Paso	26,849	16,697	1,213
Tulsa	17,940	27,096	4,136
Oklahoma City	15,384	17,479	4,622
Pittsburg	37,065	49,676	2,692
Chicago	486,759	350,729	158,427
Duval County, Fla. (Jacksonville)	74,392	31,597	4,838
Detroit	148,933	160,974	60,134
Norfolk	15,950	23,809	202,051[1]
Orange County, Fla.	55,704	28,399	357
St. Louis	33,571	48,012	7,019
Dade County, Fla.	185,249	114,339	10,113
Birmingham	23,178	9,295	1,905
Denver	36,882	71,971	11,579
Seattle	28,350	58,391	1,055
San Diego	43,273	83,745	1,466

*Very small contribution **Self-sustaining or separate
N.G.- Not given 1-Local plus auxiliary

come TABLE 1

uxiliary nterprises $(000)	Restricted Non-Federal Funding $(000)	Federal Funds $(000)
3,029	150	6,007
12,136	3,952	5,647
90	4,474	7,723
*	5,837	9,150
9,434	188	12,872
1,338	220	3,227
N.G.	N.G.	4,212
6,950	N.G.	11,600
2,568	N.G.	5,877
5,501	-0-	267
**	3,213	6,152
N.G.	N.G	N.G.
3,446	9,666	85,000
N.G.	N.G.	24,959
7,509	N.G.	15,123
7,952	N.G.	8,500
6,284	1,200	6,389
2,167	10,790	9,465
N.G.	N.G.	17,359
**	-0-	2,280
4,000	-0-	4,500
218	N.G.	2,934
4,135	247	14,092
9,096	45	112,131
10,182	11,575	7,477
14,373	N.G.	54,000
	N.G.	3,846
4,579	840	3,005
1,669	N.G.	16,870
9,248	-0-	37,678
-0-	-0-	5,768
4,958	N.G.	6,062
3,234	13,668	10,850
53	5,542	7,461

TABLE 2

Uses of

District	Teachers $(000)	School Building Administrators $(000)	School Building Support Staff $(000)
			Personnel Salar
St. Paul	30,645	2,564	8,995
Memphis	60,299	4,971	9,778
Portland	45,671	5,492	12,266
Boston	NG	NG	NG
New Orleans	46,271	2,871	12,916
Phoenix	15,998	1,403	7,785
Long Beach	40,000	3,050	NG
Milwaukee	107,200	9,140	24,729
Toledo*	27,821	2,794	8,483
Indianapolis	43,752	3,344	21,522
Cincinnati	35,680	3,352	9,854
Baltimore	105,710	15,570	3,668
Philadelphia	176,454	11,224	66,858
State of Hawaii	106,650	6,623	7,700
Newark	52,290	4,615	28,595
Nashville	47,905	3,886	6,419
Fort Worth	38,499	3,177	9,577
Oakland	38,670	2,900	6,612
Buffalo	49,396	4,019	11,814
El Paso	28,310	1,955	4,885
Tulsa	26,979	2,706	1,214
Oklahoma City	21,067	3,560	4,374
Pittsburgh	49,436	3,931	12,974
Chicago	458,377[3]		
Duval County, Fla. (Jacksonville)	51,800	8,820	10,300
Detroit	183,772	35,001	30,711
Norfolk	28,821	2,794	1,420
Orange County, Fla.	43,027	3,108	3,859
St. Louis	43,319	4,223	6,816
Dade County, Fla.	155,500	11,750	24,200
Birmingham	25,764	1,458	3,448
Denver	65,067	3,676	9,785
Seattle	49,453	4,069	26,018
San Diego	79,501	6,107	16,013

1028

NG Not Given

* General Fund Cost Only

[1] All Central Salaries

[2] Central and School Togethe

2

Funds

ries		Supplies, Equipment, Services, Etc.	
Central Staff Administrators $(000)	Central Staff Support Personnel $(000)	School Building $(000)	Central Administrative $(000)
803	1,143	4,772	1,113
1,417	4,185	2,435	519
476	1,661	1,493	225
NG	NG	NG	NG
5,517	5,906	3,600	5,800
1,007	691	3,569	278
1,300	NG	NG	NG
11,305	4,561	22,915	2,053
1,761	1,077	3,792	237
608	536	16,309	388
3,479	3,003	1,335	408
3,235	1,969	NG	NG
42,214[1]		30,638	6,625
5,076	2,268	10,550	4,410
2,905	2,403	25,777	1,584
2,383	2,331	550	2,300
2,069	956	5,749	431
2,479[1]		3,896[2]	
1,948	2,066	6,294	635
1,469	794	3,605	1,097
839	659	961	301
2,051	4,103	2,046	224
3,473	586	28,089	3,086
	161,362[4]	12,867	283
6,280	8,150	3,100	280
5,181	3,249	11,781	2,563
590	343	1,582	175
1,447	1,233	1,890	410
2,069	2,198	4,440	1,162
12,500	13,750	25,000	8,000
880	744	4,692	142
3,458	2,525	4,089	1,033
3,457	5,838	30,078	3,258
6,775	3,253	3,571	531

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[3] Includes School Building Administrators and Central Staff Administrators

[4] Includes School Building Support Personnel

Enrollment

District	Elem.	Jr.	Sr.	Total	Tea
St. Paul	20,426	9,953	11,345	41,724	2,
Memphis	53,894	28,973	23,966	116,476[1]	6,
Portland	42,586	------	21,051	63,637	3,
Boston	39,133	17,239	25,743	82,115	4,
New Orleans	50,471	20,562	22,432	93,465	4,
Phoenix[3]			28,371	28,371	1,
Long Beach	26,925	13,775	13,450	59,600[4]	2,
Milwaukee	63,305	22,424	29,560	115,289	5,
Toledo	38,244	------	19,289	57,533	2,
Indianapolis	45,506	13,720	25,300	84,526	3,
Cincinnati	35,565[5]	15,022	14,283	68,465[6]	3,
Baltimore	97,845	38,455	39,574	175,874	7,
Philadephia	143,638	61,011	62,876	267,525	12,
State of Hawaii	96,147	28,513	53,107	177,767	7,
Newark	55,758[7]	5,087	13,603	74,448	4,
Nashville	41,696	19,791	18,081	81,600[8]	4,
Fort Worth	34,205	18,481	21,577	74,263	3,
Oakland			59,035	59,035	2,
Buffalo	36,036	5,513	16,616	58,165	3,
El Paso	43,381	------	18,460	61,841	2,
Tulsa	34,635	16,200	14,976	65,811	2,
Oklahoma City	27,805	12,644	11,238	51,687	2,
Pittsburgh	36,410	8,187	23,879	68,476	3,
Chicago	385,603[11]		149,738	535,341	26,
Duval County (Jacksonville)	57,942	28,715	24,592	111,249	4,
Detroit	147,660	48,234	59,378	255,272	9,
Norfolk	25,926	11,091	9,672	46,710	2,
Orange County, Fla.	44,220	22,959	17,599	84,778	4,
St. Louis	63,515	2,368	25,779	91,662	4,
Dade County, Fla.	128,839	63,840	53,245	245,924	12,
Birmingham	35,908	------	17,592	53,500	2,
Denver	45,259	20,869	16,980	83,108	4,
Seattle	32,619	17,032	19,374	69,025	3,
San Diego	66,506	28,856	26,387	122,749	5,

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[1] Includes 6,992 Kindergarten, 2,651 Special Education

[2] Includes 108 Counselors

[3] Personnel Does Not Include Federal Program Personnel

[4] Includes 4,525 Kindergarten, 925 Miscellaneous

[5] Kindergarten Weighted

[6] Includes 3,595 Special

[7] Includes Special Educa

[8] Includes 2,032 Special

GRAPHICS

	Personnel			
achers	Sch. Bldg. Admin.	Sch. Bldg. Support	Cen. Staff Admin.	Cen. Staff Support
,550	86	1,153	95	75
,288	222	3,008	192	286
,196	278[2]	1,360	35	161
,764	254	3,097	176	547
,620	181	2,848	442	887
,089	68	797	44	93
,500	128		56	
,721	319	2,650	385	342
,474	236	1,684	105	424
,808	488	2,024	385	342
,135	175	1,911	173	343
,761	377	461	685	586
,831	547	7,822	266	2,370
,806	378	756	486	2,918
,253	333	2,856	50	341
,211	192	1,899	172	428
,426	182	1,538	114	173
,922	137	1,792	130	300
,588[9]	165	1,441	101	154
,885[10]	131	1,064	77	140
,943	289	1,822	200	652
,288	288	937	166	658
,325	168	1,802	151	679
,565	992	14,832	1,921	2,231
,981	672	2,614	459	1,416
,979	582	7,819	1,248[12]	
,466	103	526	88	90
,468	186	2,507	151	295
,218	255	973	134	1,656
,429	537	4,400	864	2,500
,588	93	743	55	102
,379	233	1,582	190	371
,268	182	2,731	154	586
,064	239	2,043	284	256

One-Half

l Education

ation

l Education

[9] Includes 119 Counselors, 52 Librarians

[10] Includes 78 Counselors, 94 Others

[11] Includes Junior High Enrollment

[12] Administration and Support Staff Combined

TABLE 4

Total Personnel-to-Category Ratios

District	Total/ Teachers	Total/Sch. Bldg.Admin.	Total/Sch. Bldg.Support	Total/Central Staff Admin.	Total/Central Staff Support
St. Paul	.64	.02	.29	.02	.02
Memphis	.63	.02	.30	.02	.03
Portland	.64	.06	.27	*	.03
Boston	.54	.03	.35	.02	.06
New Orleans	.51	.02	.32	.05	.10
Phoenix	.52	.03	.38	.02	.04
Long Beach	.93	.05	---	.02	---
Milwaukee	.61	.03	.28	.04	.04
Toledo	.50	.05	.34	.02	.09
Indianapolis	.50	.06	.26	.02	.16
Cincinnati	.55	.03	.33	.03	.06
Baltimore	.79	.04	.05	.07	.06
Philadelphia	.54	.02	.33	.01	.10
State of Hawaii	.63	.03	.06	.04	.24
Newark	.54	.03	.36	*	.04
Nashville	.61	.03	.08	.02	.06
Fort Worth	.63	.03	.28	.02	.03
Oakland	.55	.03	.34	.02	.06
Buffalo	.58	.04	.32	.02	.03
El Paso	.67	.03	.25	.02	.03
Tulsa	.50	.05	.31	.03	.11
Oklahoma City	.53	.07	.22	.04	.15
Pittsburgh	.54	.03	.29	.02	.11
Chicago	.57	.02	.32	.04	.05
Duval County (Jacksonville)	.49	.07	.26	.05	.14
Detroit	.51	.03	.40	.06	---
Norfolk	.75	.03	.16	.03	.03
Orange County (Fla.)	.59	.02	.33	.02	.04
St. Louis	.58	.04	.13	.02	.23
Dade County (Fla.)	.60	.03	.21	.04	.12
Birmingham	.72	.03	.21	.02	.03
Denver	.65	.03	.23	.03	.05
Seattle	.47	.03	.39	.02	.08
San Diego	.64	.03	.26	.04	.03
MEAN	.60	.035	.27	.03	.08

*Less than .01

Table 5

Administrator-Support Personnel Ratios

District	Sch. Blg. Admin/ Sch. Blg. Support	Central Staff Admin/ Central Staff Support
St. Paul	.07	1.27
Memphis	.07	.67
Portland	.20	.22
Boston	.08	.32
New Orleans	.06	.50
Phoenix	.09	.47
Long Beach	---	---
Milwaukee	.12	1.13
Toledo	.14	.25
Indianapolis	.24	.13
Cincinnati	.09	.50
Baltimore	.82	1.17
Philadelphia	.07	.11
State of Hawaii	.50	.17
Newark	.12	.15
Nashville	.10	.40
Fort Worth	.12	.66
Oakland	.08	.43
Buffalo	.11	.66
El Paso	.12	.55
Tulsa	.16	.31
Oklahoma City	.31	.25
Pittsburgh	.09	.22
Chicago	.07	.86
Duval County (Jacksonville)	.26	.32
Detroit	.07	---
Norfolk	.20	.98
Orange County (Fla.)	.07	.51
St. Louis	.26	.08
Dade County (Fla.)	.12	.35
Birmingham	.13	.54
Denver	.15	.51
Seattle	.07	.26
San Diego	.12	1.11
Mean	.16	.50

TABLE 6

Administrator-Student and Pupil-Teacher Ratio

District	Administrators Per 1000 Students	Pupil-Teacher Ratio
St. Paul	4.3	16.4
Memphis	3.6	18.5
Portland	4.9	19.9
Boston	5.2	17.2
New Orleans	6.7	20.2
Phoenix	3.9	26.1
Long Beach	3.1	23.8
Milwaukee	6.1	20.2
Toledo	5.9	23.3
Indianapolis	7.6	22.2
Cincinnati	5.1	21.8
Baltimore	6.0	22.7
Philadelphia	3.0	20.8
State of Hawaii	4.9	22.8
Newark	5.1	17.5
Nashville	4.5	19.4
Fort Worth	4.0	21.7
Oakland	4.5	20.2
Buffalo	4.6	16.2
El Paso	3.4	21.4
Tulsa	7.4	22.4
Oklahoma City	8.8	22.6
Pittsburgh	4.7	20.6
Chicago	5.4	20.2
Duval County (Fla.)	10.2	22.3
Detroit	7.2	25.6
Norfolk	4.3	18.9
Orange County	4.0	19.0
St. Louis	4.2	21.7
Dade County	5.7	19.8
Birmingham	2.8	20.7
Denver	5.1	19.0
Seattle	4.9	21.1
San Diego	4.3	24.2
Mean	5.2	20.9

TABLE 7

Per-Pupil Expenditure

District	Local Funds $	State Funds $	Federal Funds $	Total $
St. Paul	549	614	125	1,288
Memphis	569	403	48	979
Portland	946	328	193	1,467
Boston	840	413	113	1,366
New Orleans	279	369	105	754
Phoenix	405	595	114	1,184
Long Beach	N.G.	N.G.	N.G.	N.G.
Milwaukee	1,021	537	6	1,570
Toledo	568	346	103	1,017
Indianapolis	604	331	3	938
Cincinnati	979	43	106	1,128
Baltimore	N.G.	N.G.	N.G.	N.G.
Philadelphia	673	939	35	1,677
State of Hawaii	43	1,010	138	1,190
Newark	686	709	203	1,598
Nashville	644	375	102	1,121
Fort Worth	271	356	83	711
Oakland	N.G.	N.G.	N.G.	1,351
Buffalo	555	669	1	1,226
El Paso	385	488	41	915
Tulsa	N.G.	N.G.	N.G.	N.G.
Oklahoma City	428	297	57	782
Pittsburgh	784	541	206	1,419
Chicago	944	854	204	2,033
Duval County, Fla. (Jacksonville)	291	723	19	1,033
Detroit	523	557	36	1,116
Norfolk	523	320	236	1,079
Orange County, Fla.	339	667	2	985
St. Louis	600	366	184	995
Dade County, Fla.*	418	561	121	1,100
Birmingham	220	432	56	708
Denver	805	355	82	1,242
Seattle	847	544	140	1,532
San Diego	677	388	59	1,124
MEAN	581	504	97	1,182

*Figures include capital outlay and debt service.

TABLE 8

DISD Compared to Large City Schools: Sources of Income

Category	DISD ($000)	DISD Ranking
State	42,616	15
Local Tax	95,899	6
Other Local	2,616	16
Auxiliary Enterprises	700	28
Restricted Non-Federal Funds	-	-
Federal Funds	10,200	14

TABLE 9

DISD Compared to Large City Schools: Use of Fund I

Category	DISD ($000)	DISD Ranking
Salaries		
Teachers	75,926	9
School Bldg. Adm.	5,734	9
School Bldg. Support Staff	17,706	8
Central Staff Adm.	4,374	8
Central Staff Support Personnel	2,897	12
Supplies, Equipment, Services, Etc.		
School Building	8,928	11
Central Staff	4,836	4

TABLE 10

DISD Compared to Large City Schools:
Student Enrollment and Personnel

Category	DISD	DISD Ranking
Enrollment		
Elementary	85,235	7
Junior High	32,231	5
Senior High	35,414	8
Total	152,880	7
Personnel		
Teachers	7,323	7
School Bldg. Adm.	302	11
School Bldg. Support	5,018	4
Central Staff Adm.	230	10
Central Staff Support	443	14

TABLE 11

DISD Compared to Large City Schools: Personnel Ratios and Student Ratios

Category	DISD	DISD Ranking
Total Personnel Ratios		
Total/Teachers	.54	22
Total/School Bldg. Adm.	.02	28
Total/School Bldg. Support	.38	3
Total/Central Staff Adm.	.02	13
Total/Central Staff Support	.03	23
Administrative Support Ratios		
School Bldg. Adm./ Sch. Bldg. Support	.32	3
Central Staff Adm./ Central Staff Support	1.5	1
Student/Personnel Ratios		
Adm./1000 Students	3.5	30
Pupil/Teachers	20.9	16

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TABLE 12

DISD Compared to Large City Schools: Per Pupil Expenditures

Category	DISD	DISD Ranking
Local Funds/Pupil	555	16
State Funds/Pupil	285	29
Federal Funds/Pupil	10	26
Total/Pupil	850	30

Additional Information:

75-635 Survey of Large-City School Administrations: 1974-75, 1975, W.R. Young, III.

Abstract

Bilingual Education:
A Review of the Literature

Evaluator: L. Nicora Simmons

Objectives of the Program: The Bilingual Education Act (Title VII, ESEA) was signed into law in 1968. The accompanying guidelines presented a definition of a bilingual program.

> It is "the use of two languages, one of which is English, as mediums of instruction....in a well organized program which encompasses part or all of the curriculum...." (quoted in 1, p. 432). (Jacobson, 1974, p. 5)

The Act of 1974 and its supplements also provided a definition of a bilingual education program:

> Instruction given in and study of English and, to the extent necessary to allow a child to progress effectively through the educational system, the native language of the children of limited English-speaking ability....[20 U.S.C.A. ξ 880b -1 (a) (4) (A) (6) (Supp. 1975)]

Perusal of these two definitions reveals a potential conflict of objectives which has haunted bilingual education planners and affected the implementation of programs throughout America. Both definitions agree that English should be a medium of instruction in the public schools. The first however, specifies two languages for "part or all of the curriculum" with no specific limitations; the second specifies that the non-English language is used only "to the extent necessary to allow a child to progress effectively through the educational system." Both definitions can be interpreted to mean the same. But some bilingual programs reflect the first definition: their major objective is to make students balanced bilinguals, thus maintaining both English and non-English languages in America. Other bilingual programs reflect the second definition: their major objective is to make their students capable of progressing through a monolingual, English curriculum, thus viewing languages other than English as merely transitional mediums used to help non-English speakers only until they learn enough English to follow a "regular" program. Thus bilingual programs are often categorized by their objectives: maintenance programs or transitional programs. There are many shades of each, but a program can usually be recognized as one or the other. And the potential conflicts between their objectives are obvious. The conflicts become even more evident when a third, powerfully expert group throws its support on the side of maintenance programs and offers strong arguments that bilingual education would benefit all American students, English- and non-English-speaking.

There is also a concomitant area of conflict closely associated with bilingual program objectives. Both the original act and later associated legislation agree and specify that the history and culture of non-English-speaking children should be studied (1968 legislation) and appreciated (1975 legislation). For this reason, bilingual education programs are often labelled bilingual-bicultural programs or bilingual-multicultural programs. Maintenance programs usually strongly emphasize this "cultural" component. Transition programs may emphasize it while non-English-speakers are making the transition to a monolingual curriculum or while certain federal funding is dependent upon its being included in school curriculum.

Ultimately, the conflict between the objectives of maintenance and transitional bilingual-multicultural programs and monolingual-monocultural programs probably reverts back to the conflict over national objectives or philosophy. Does America melt or meld its people together? Is America assimilationist or pluralist? Do American schools mold children according to a prescribed definition of "an American" or do they reveal to children the variety of cultures and languages which are subsumed in the term "an American"?

But the specific conflict evidenced by the objectives of various bilingual-bicultural programs percolates from the federal level down through the state and local levels. A Rand Corporation report describes the "turbulence and conflict" at the *federal* level:

> These....issues and innumerable related ones have caused conflict between the federal program [Title VII] office and top-level management in OE [U.S. Office of Education], between OE and Congress, among an organized special interest group and top-level decision makers in OE and the administration and among members of the [Title VII] program office. (Sumner et al., 1975, p. I-1)

In their case studies of bilingual-multicultural programs Rand fieldworkers recognized that the Title VII program definitions are based upon the maintenance philosophy of bilingual education. However along with numerous other writers (e.g., Condon, 1974; C. Perez, 1975; Shender, 1976), they recognized that at the *state* level, transitional programs are typically prescribed by state legislation (Sumner et al.). And at the *local* level transitional-oriented programmers tend to see America and the schools as a melting pot from which children emerge as easily identified, English-speaking Americans. Maintenance-oriented programmers tend to see the melting pot as an image which has degenerated into forcing conformity upon *all* Americans, not just the 20-30 million Americans who are not native-English speakers. But, as a general rule, whatever their faith

> At the LEA level, in contrast to state and federal levels, there seems to be no vigorous debate over the relative merits of transition versus plural culture maintenance. Confronted by the hard facts of budget and availability of bilingual staff, the question usually is "What can be done with available resources to improve on the basic transition approach?" (Sumner et al., p. III-9)

Some schools receiving Title VII funds implement a maintenance program with its concomitant objectives. Some schools receiving Title VII funds in response to their proposed maintenance program implement a state-mandated transitional program and hope that the Office of Civil Rights staff, designated to inspect programs for compliance, don't sniff too close.

The major goal of bilingual education is clear: to promote and enhance the educational process in America. Transitional program supporters believe their program objectives can best contribute to that goal. Maintenance program supporters believe their objectives can. The latter also tend to think that opposition is something to be expected at the introduction of a new educational concept and that it will lessen as their success, the ultimate cost-effectiveness of the bilingual program, and bilingualism itself become more familiar to their opponents.

Purpose of the Review: This review attempted to present a comprehensive, in-depth survey of the literature pertaining to bilingual education programs in America. It sought to cull from the literature a general overview of bilingual education in America, definition of the major problems presently affecting implementation of bilingual education programs, and description of a variety of bilingual education models, designs, and exemplary programs.

Limitations of the Review: Much of the review's discussion of bilingual education in America and the problems affecting implementation of bilingual education programs is related to any non-English-speaking population. However, there is undoubtedly a predominance of references to what is loosely called the American Spanish-speaking population. The selection of models/designs and exemplary programs was generally restricted to those programs focusing upon that group. A most obvious reason for this limitation: this review was written for readers in a Texas school district. According to one study, there were approximately 45,000 Mexican immigrant-alien students enrolled in Texas schools during the first quarter of the 1975-76 academic year (Dallas Morning News, 1976). Another study (Guerra, 1972) revealed that Mexican-American students have the highest dropout rate in America, as high as 70 percent in some southwestern schools (Balinsky, 1974). A second reason is almost equally obvious. Spanish (or forms thereof) is the second most common language in the United States. That language population now approaches 20 million, "twice the total estimated by the Census Bureau five years ago" (Deane & Zirkel, 1976). The U.S. Office of Education estimated in 1975 that there were 4.5 million Spanish-speaking children in America (U.S. Commission on Civil Rights, 1975). As a result of their predominance, more of the literature on bilingual education focuses upon the Spanish-speaking population and programs affecting them. This review yielded to the same inclination.

A second limitation resulted from the literature's tendency to view the plethora of transitional programs more as (a) locally customized, stop-gap measures imposed by the suddenly mandated bilingual education and the lack of means to implement major programs, (b) lip-service responses to federal mandates which conflict with deeply engrained and long-maintained attitudes toward low-status languages and populations, or (c) a combination of both (a) and (b). Maintenance bilingual-multicultural programs appear to be the present primary goal of Title VII. The focus of federal research and development in the area of bilingual education is upon remedies to the problems hampering implementation of maintenance programs, though simultaneously their efforts contribute to transitional programs. Part Three of this review, presenting models, designs, and exemplary programs, thus focused upon the maintenance approach to bilingual education.

A third limitation was occasioned by the lack of reliable program evaluation data in many instances. The current shortage or non-existence of valid evaluation instruments and designs made available evaluation results suspect, not to mention the fact that many evaluations were written to comply with federal guidelines which required evaluation results as a prerequisite for receiving federal funds. Consensus opinions and certain trends could be derived. And in some instances evaluation data seemed quite reliable. But it will probably be some time before incontestably reliable data are available, particularly in the cognitive domain.

Review Design: The review was divided into four parts. PART ONE (38 pages) presented an overview of bilingual education in America. It first gave a brief summary of the history of bilingual education in America: its inception in 1840, its near demise in the early twentieth century as a result of wartime fervor with heightened nationalism and beseiged school budgets, its revival in the 1950's, and its acceleration after the Bilingual Education Act of 1968 and related legislation in the 1970's. Contemporary views regarding national bilingualism and bicultural components of bilingual education were then presented. Federal positions regarding bilingual education were defined, and a table listing federal bilingual funding 1969-1976 included. Recent related federal and state court decisions were summarized. State-level mandates were categorized as of April 1975 (Geffert, Harper, Sarmiento, & Schember, 1975), and a figure portraying bilingual education legislation in each of the fifty American states was included, as well as a figure listing by state bilingual bills proposed in 1975 in 22 states (National Advisory Council on Bilingual Education, 1975). The overview concluded with a brief definition, comparison, and discussion of the major implementation patterns of bilingual education, transitional and maintenance, and the relationship to each of English-as-a-Second-Language programs.

PART TWO (35 pages) of the review considered four major problems affecting implementation of bilingual education programs. The first three problems were (a) the shortage of qualified bilingual program teachers, remedies in progress, and the attitudes of teachers and teacher unions toward bilingual education, (b) the shortage of good bilingual program materials, and remedies in progress, and (c) the shortage of good bilingual program evaluation instruments, and remedies in progress. The fourth problem was labelled "Misconceptions and Myths; Pride and Prejudices." Discussion of that problem recounted the literature's enumeration of and responses to ideas and attitudes which have hampered the implementation of bilingual education in America.

PART THREE (91 pages) first attempted to define common denominators of bilingual-multicultural programs. Then, the largest part of the section was devoted to descriptions of bilingual-multicultural models/designs and exemplary programs. These included (a) a "basic design" for bilingual-bicultural education programs delineated by the U.S. Commission on Civil Rights (1975), (b) two models of which the consensus of Puerto Rican and Mexican-American community opinions approve and three models of which they disapprove (Crain et al., Rand Corporation Report, 1974); (c) nine exemplary programs selected by R. J. Cornejo (1974) from among 123 identified bilingual programs designed specifically for Mexican-American children; (d) the Pueblo (Colorado) School District No. 60 program, (e) the pseudonymous "Metropolis" program evaluated by Rand Corporation fieldworkers, (f) the Philadelphia (Pennsylvania) School District Program (1974), (g) the Milwaukee (Wisconsin) Bilingual/Bicultural Education Program (1975), (h) the Cleveland (Ohio) Public Schools Program (1975), and (i) the Chicago (Illinois) Board of Education Design (1974). A brief definition of the basic types of English-as-a-Second-Language programs was then presented. And finally, a brief definition and description of the Canadian St. Lambert (1975) and Californian Culver City (1975) immersion programs concluded the section.

PART FOUR (5 pages) contained conclusions derived from this review of the literature.

Review Conclusions:

1. As of 1975, eight of the 50 American states have mandated bilingual education, 12 have prohibited it by requiring that instruction be exclusively in English, and 30 either have no provisions specifying language of instruction or have provisions permitting the use of a language other than English.

2. Bilingual education programs which are accused of reflecting a confused lack of management, unclear objectives, and slipshod implementation might actually be mirroring the confusion and conflict regarding the goals of bilingual education which exist both among and between federal-level and state-level planners. So, for example, the present federal position in general seems to support but to offer little direct guidance toward achieving maintenance programs. Those states mandating or permitting bilingual education seem to support transitional programs. Federal and state courts are issuing contradictory decrees regarding both. No wonder that local school district responses to such varying and contradictory pressures, often complicated by pressures resulting from the shortage of qualified bilingual program teachers and materials as well as pressures from local attitudes toward bilingualism and biculturalism, might understandably reflect a confused lack of management, unclear objectives, and slipshod implementation.

3. Both transitional and maintenance programs of bilingual education appear to be achieving success in the affective domain. Since maintenance programs are particularly keyed to that domain it is not surprising that they seem to show superior results.

4. Both transitional and maintenance programs claim to be achieving success in the cognitive domain. The serious lack of valid testing instruments as well as the plethora of disputes involved in the development and/or adaptation of criterion-referenced tests and standardized tests makes difficult any definitive judgment of their claims as well as any definitive selection of an ideal program. Longitudinal comparisons seem to favor maintenance programs. The literature generally recognizes maintenance programs as being more potentially successful and/or actually successful in improving cognitive achievement.

5. Contrary to the view that bilingual education offers "compensatory" or "remedial" programs to deprived, handicapped children, much of the literature (including the 1971 Title VII Manual for Project Applicants and Grantees and The National Advisory Council on Bilingual Education) enumerate the numerous benefits which all children might and should accrue from bilingual education programs and argue that children whose dominant language is English should be taught the dominant language of the minority-language children, particularly if the minority-language is endemic to their region.

6. The literature tend to agree that it is not so much linguistic factors as social factors which interfere with the acquisition of a second language. This is one reason why maintenance programs strongly stress their bicultural component. Social attitudes toward a minority cultural group and its language significantly affect a minority-group child's ability to learn the language of the dominant group as well as a dominant-group child's ability to learn the minority-group language. Ironically, if social prejudices regarding non-English speaking cultures and peoples did not exist on the American scene, the English-immersion and ESL pull-out programs would undoubtedly achieve far more success or, at least, not fail as miserably as they have in the past.

7. A considerable amount of the literature, even the most objective cut-and-dried reports, devotes time and space to enumerating and answering to popular misconceptions and social myths as well as social factors of pride and prejudice which have affected attitudes toward and implementation of bilingual education programs. Among them are definitions of "an American" which exclude 20-30 million Americans (including American Indians) and demand that their progeny recognize their parents to be "un-American" or, at best, second-class citizens. Another is the association of terms such as "compensatory," "handicap," "remedial," "disadvantaged" with bilingual education. A common misconception of bilingual education programs is that English is not taught. Majority-group parents who would like their children to learn two languages

and even minority-group parents sometimes do not know that maintenance programs are bilingual, that is, they focus on equal development of two languages. Ignorance of the processes of language learning lead to such expressions as "Anyone who can speak English can teach English" (Anyone who can read can teach reading) and "Learning two languages, you learn each only half well" (Studying algebra and geometry in high school, you learn each only half well). As in other areas, so in the area of bilingual-multicultural education: only the communication of facts, logic, and experience can inhibit the detrimental effect of such misconceptions, myths, and prejudices.

8. Steps are being taken to improve the quality and increase the quantity of bilingual teacher training. The federal government allocates funds for such training. They also are sponsoring teacher training models which may be modified for school inservice training programs. And they have authorized a survey of institutions of higher education to see what they are offering to train bilingual education teachers and how many are being graduated. At present, schools rely largely upon in-service training programs and encourage staff improvement outside their own district programs.

   With regard to teacher union attitudes toward bilingual education, the NEA has emphatically promoted and advocated bilingual-multicultural programs. The AFT under Shanker is less hearty in approval. Shanker seems to be quite in opposition to bilingual-multicultural maintenance programs and only reluctantly supports transitional programs if they mainstream children fast enough.

   The literature suggests that teachers new to bilingual education programs or associated with transitional programs tend to be negative in their attitudes toward bilingual education. Those associated with maintenance programs appear to be immensely positive in their attitudes toward the programs.

9. School districts still rely heavily upon creating their own bilingual program materials or adapting commercial materials to their needs, though the lack of commercial publishers' involvement in producing materials is attacked by some of the literature. There are two national dissemination and assessment centers funded by Title VII. Development centers in the national Title VII network and local Title VII projects are contributing to an increasing stockpile of materials. One problem is that government-sponsored materials, such as some produced by the Southwest Educational Development Laboratory reject the transitional approach and advocate maximum growth in both the mother tongue and second language, which does not endear them to transitional programmers.

10. The literature generally agree that there is a desperate need for tests that can accurately determine the linguistic proficiency level of students, measure fairly the cognitive achievement of minority-language students, compare fairly the achievement of bilingual students with that of mono-

lingual students, and measure accurately the changes in attitudes, perception, and self-concepts of minority-language-dominant children and/or bilingual children. Tests that do exist are generally new translations and too often reflect cultural and socioeconomic biases. The U. S. Commission on Civil Rights advocates the use of both norm-referenced and criterion-referenced tests, but they, too, recognize the scarcity and inadequacy of tests appropriate for bilingual education programs. Title VII is, of course, sponsoring research efforts in the development of testing instruments.

The ultimate consensus of opinion in the literature reviewed seems to be that bilingual education programs, particularly maintenance programs, are being successful -- sometimes startlingly so, considering the number of problems confronting their implementation. Their success seems to stand as a symbol of the monumental need that necessitated federal promotion of bilingual-multicultural programs in America.

Additional Information:

AR77-085-7-9 Bilingual Education: A Review of the Literature, 1976, L. Nicora Simmons.

Abstract

Compensatory Education:
A Review of the Literature

Evaluator: L. Nicora Simmons

Objectives of the Program:

> No law I have signed or will ever sign means more to the future of America.

So said the President of the United States when he signed into existence P.L. 89-10 -- the Elementary and Secondary Education Act (ESEA) on 11 April 1965. By 1975 fourteen states had established their own compensatory education funds in addition to federal allocations. P.L. 89-10 declared:

> The policy of the United States [is] to provide financial assistance...to local educational agencies serving areas with concentrations of children from low-income families to expand and improve their educational programs by various means...which contribute particularly to meeting the special educational needs of educationally deprived children [20 U.S.C. (241a). P.L. 89-10, Title I, sec. 2, 79 Stat. 27].

According to the National Advisory Council on the Education of Disadvantaged Children (NACEDC), "educationally deprived" is the legal term used to describe any child who has special educational needs and who is living in a low-income area. Another common definition of "educationally deprived children" includes among the educationally deprived all children who are not achieving at grade level. These definitions indicate a dual focus: poverty and achievement. Ultimately, insofar as federal compensatory educational monies fund non-instructional services (59% of the school districts use funds to this end), the program focuses upon poverty; insofar as they fund instructional services, the program focuses upon achievement. The poverty-oriented group almost always includes low-achievers, but not vice versa. So, for instance, included among the educationally deprived and therefore eligible for compensatory services whether or not they be socioeconomically deprived, are (a) handicapped, (b) delinquent, (c) neglected and abused (d) migrant, (e) bilingual, and (f) American Indian.

In practice, both federal and state programs have tended toward the dual focus, defining educationally deprived by both poverty and achievement criteria. Some funding relies solely on poverty-level statistics. Other funding relies on categorical numbers. Most recently the government is researching and experimenting with ways to make achievement level rather than poverty level the basis of most allocations. The achievement focus thus seems to be emerging more strongly than the poverty focus. In the 1976 NIE national survey, 82.5% of all district administrators recognized as the first objective of compensatory instruction the improvement of "the compensatory education student's ability to learn basic skills and to bring their achievement up to that of their peers" (p. 20). Thus speak the practicing administrators. But the literature to date reflects either the dual focus or a wavering between the two--poverty and achievement.

The major objective of compensatory education, then, has been to support educational programs for educationally deprived children, usually characterized by the low socioeconomic level of their families and their low achievement level, in those districts which are too financially strapped to afford such special programs.

A second objective of compensatory education is accountability. At the federal level a major effort has been launched in this direction, beginning with the Education Amendments of 1974, which required "thorough evaluation and study" not only of federally supported compensatory education programs but also of state compensatory education programs (P.L. 93-380, 93rd Congress, H.R. 69). The offices of the Assistant Secretary for Education (ASE) and the Assistant Secretary for Planning and Evaluation (OPBE), as well as the Office of Education (OE) and National Institute of Education (NIE) have each launched a large number of studies. To date, national evaluations of compensatory education have been one fiasco after another. Most state and local evaluations have been shameful and embarrassing or both. One reason for the failure of such evaluations has been the incomparability of evaluation results even between schools, much less between districts and states. This second major objective of the compensatory education program, then, at least so far as the federal government is concerned, is to standardize evaluation procedures so that individual schools, districts, and states may not only be held accountable but also may contribute to the data bank of information from which individual schools may draw ideas to improve and refine their own compensatory education programs. There are, of course, state-supported compensatory education programs. But since the federal government allocates large sums-- $2 billion for Title I alone in 1976-- what the federal government establishes as a major objective of compensatory education may well be considered a major objective for all compensatory education. And, indeed, most states would pay at least lip-service to the objective of accountability.

A possible third objective of the compensatory education program emerges. At present, it would be corollary to the objective of standardizing evaluation procedures to the end of promoting accountability. Actually, it might eventually be an end toward which that second objective aims, namely, to delegate more decision-making and authority into local hands. Repeatedly the literature reveals federal-level recognition of the fact that, to be effective, compensatory education programs must be tailored to unique, local needs. At the same time, there is a concern with accountability. So far, the evaluation processes which ensure accountability have failed. If such processes could be standardized and implemented, then the local school districts could be given a freer hand in designing and implementing compensatory programs. In effect, if a common language could be devised, a language through which each and every school could transmit information regarding the results and effects of their programs, then each and every school could be given increased decision-making authority with regard to their compensatory education programs. Thus, more recent federal legislation tends to touch the local scene more directly. So, for instance, most federal funds distributed for the handicapped, previously directly controlled by the state education agency, are eventually (by 1979) to pass directly into the hands of local education agencies, according to the new formula devised by P.L. 94-142 (Goodman, 1976, p. 17). Recent legislation concerning migrant education, which is largely state-controlled, includes a by-pass clause which allows the Commissioner of Education to by-pass any state agency in the distribution of Title I migrant grants and "make special arrangements" with other public or private local agencies (Masurofsky, 1976, p. 17). A third possible objective of the compensatory education program, then, may be the establishment of more local control over compensatory education funds and programming.

Purpose of the Review: This review attempted to present a comprehensive survey of the literature pertaining to compensatory education. It focused particularly upon the present state of compensatory education evaluations. It then surveyed the present state of compensatory programs in reading, language arts, and mathematics as exemplary of cross-categorical instructional services. The handicapped and the migrant students, recipients of the two largest federal allotments, were then singled out as exemplary of the more recent trends in compensatory education. Combining these three elements together hopefully provided an overview of the present state of compensatory education as well as trends which help forecast future developments.

Limitations of the Review: A list of this review's limitations might be more lengthy than its Table of Contents. Of the instructional and non-instructional services supported by compensatory education funds, this review focused largely upon instructional services. Discussion of those instructional services was further limited to a focus upon reading, language arts, and mathematics. Of the recipients, public and private schools, only the public schools were considered. From the various categories of recipients--neglected and abused, juvenile delinquent, bilingual, handicapped, migrant and so on--only the migrant and handicapped were considered in detail. The others were omitted as being too far afield from the average public school scene, or largely the concern of other public or private institutions, or so fully organized and developed as to merit full reviews on their own. Funding and administration of compensatory services would also require a volume on their own; they are only cursorily touched upon in the review. Finally, though much of what was discovered refers to compensatory education at both the federal and the state levels, sometimes discussion tended to focus mainly upon federally supported compensatory education.

In sum, the review was limited to discussing compensatory education instructional services provided by federal- and state-level funding to public school students, with a specific focus (among the programs) upon reading, language arts, and mathematics and (among the student recipients) upon the migrant and handicapped.

Review Design: The review was divided into eight parts. PART ONE (7 pages) introduced the topic. A brief historical overview first defined the Elementary and Secondary Education Act (ESEA) signed into law on 11 April 1965, subsequent amendments of that law, and the eligible recipients of compensatory education services. Then a chronological overview (1972-77) of the effects of compensatory programs was sketched, revealing an indecisive pro-con, pro-con, pro-con pattern until critics seemed to agree on only one point: that no one had provided or been provided with adequate evaluation data to definitively decide whether the national compensatory education program is a rare feat or rank fiasco. Brief reference was finally made to the present scene--ongoing attempts to remedy the lack of evaluation data as well as exploration of alternative ways to distribute federal funds to school districts and school districts to individual schools.

PART TWO (20 pages) elaborated the present scene of compensatory education implementation and provided general information regarding compensatory education in 1976. The information was largely drawn from NIE's first interim report, published December 1976, which contained survey data collected during the 1975-76 school year from a national random sample of one hundred Title I school districts. It provided data on (a) the scope of compensatory education, (b) the range of services provided with Title I funds, (c) the characteristics of the students receiving compensatory services, and (d) the characteristics of compensatory instruction. The National Advisory Council on the Education of Disadvantaged Children (NACEDC) challenged certain aspects of the NIE study, particularly the sample size representing the largest school districts (1976, p. 64). However, they apparently have not yet challenged any of the results; therefore, the NIE overview of the scope and characteristics of federal/state compensatory education was considered by this review to be the most reliable and comprehensive available.

PART THREE (23 pages) elaborated the present concern with accountability and evaluation. It also summarized the consensus of opinions about compensatory education to account for that present concern with accountability. The review briefly sketched past local, state, and national evaluation efforts, their results, and where and why they failed. The sum total of past evaluation efforts: failure--failure of evaluation, not necessarily of compensatory education. Despite the negativity of that failure, the review did draw from the past evaluations a consensus of opinions about particular features of compensatory education: (a) that it is "a permanent policy feature" of the government,(b) that it has positively affected other children and the education system as a whole, (c) that state- and local-level evaluation processes must be improved and accountability enforced, (d) that achievement rather than poverty may be a better criterion for allocation of funds and services, (e) that identification of and dissemination of information about exemplary education programs are of positive value, and (f) that parental involvement, emphasis upon cross-categorical programs (career education, bilingual education, early childhood education) and inclusion of certain instructional characteristics such as individualization contribute significantly to the success of compensatory education programs.

PART FOUR (13 pages) picked up upon the last-mentioned area of consensus, namely, instructional characteristics deemed vital to successful compensatory education programs. Four program features are commonly identified as significantly affecting participants' achievement and attitude toward school: (a) individualized instruction, (b) instructional setting (mainstream vs. pullout), (c) amount of instruction (instructional time), and teacher training (specialist vs. regular). The list has no compensatory education hallmark upon it, reinforcing the contention that what benefits the disadvantaged student benefits all students. In mandating the present on-going evaluation of compensatory education, Congress specified the exploration of individualized instruction and teacher training.

NIE reviews of previous evaluations and research as well as conferences with teachers, program specialists, and policymakers supported the reasoning behind that Congressional specification as well as isolated the other two factors. This part of the review drew largely from those NIE reviews of the literature dealing with the four features and their impact upon student achievement and attitude toward school.

PARTS FIVE (30 pages) and SIX (53 pages) discussed the present state of compensatory education, focusing upon (a) instructional services--reading, language arts, and mathematics specifically, and (b) student recipients--handicapped and migrant, specifically.

Remedial reading, language arts, and mathematics are the three most frequent subjects for compensatory instruction. The review presented data regarding the number of school districts offering these subjects, their approximate budget allotments, and their number of student participants. It then discussed those three subjects in relation to the four instructional features elaborated in PART FOUR, namely individualized instruction, instructional setting, amount of instruction, and teacher training. Brief reference was made to the National Assessment of Educational Progress, 1976 (NAEP) and the National Center for Education Statistics (NCES) 1977 reading and mathematics national assessments.

Migrant and handicapped students were selected from among the various categories of recipients. Of categorical federal funds, the largest allocation is made to the migrants; the second largest to the handicapped. The Education for All Handicapped Children Act (P.L. 94-142, 1976) scheduled for full implementation in FY 1978 has spotlighted the handicapped among other on-stage compensatory programs. Migrant programs are often somewhere in the shadowy wings despite regular strong cues enunciated by Congress as it consistently raises their allotment ($130,900,832 in 1977). Other programs have at one time or another been centerstage and by now have developed a relatively powerful organizational apparatus at local, state, and federal levels. Handicapped programs are in the throes of growth. Migrant programs, largely state-controlled, are consistently upstaged; but the increasing number of students involved and emphasis upon accountability make it prime for a leading role in the future. In addition, legislation for both the migrant and handicapped possibly reveal trends in future legislation. This review briefly capsulized the main points of the programs' legislative history, defined the populations involved in the programs, described the components of typical programs, reviewed literature concerning the programs, and described the present state of the programs.

PART SEVEN (pages) of the review briefly discussed what compensatory education literature revealed concerning the debate over the contribution or intrusion (depending on which side of the debate one chooses) of federal government into the public schools via compensatory education legislation, funding, and evaluation.

PART EIGHT (pages) concluded the review with a summary list of conclusions derived from the preceding discussions.

Review Conclusions:

A. Research and Evaluation
B. Success/Failure of Compensatory Education
C. Achievement/Poverty Criterion
D. Exemplary Programs and Exemplary Program Features
E. Reading and Language Arts
F. Mathematics
G. Migrant Education
H. Education of the Handicapped
I. The Federal Role

A. Research and Evaluation

1. The National Institute of Education (NIE) is creating a valuable data bank on Title I-funded and State-funded compensatory education programs, including information on the scope of compensatory education, that is, information regarding (a) appropriations, expenditures, uses of funds; (b) numbers, racial and ethnic composition, and distribution by grade of recipients; (c) descriptions of instructional and non-instructional services; and (d) numbers, educational background, racial and ethnic composition, and distribution by subjects taught of compensatory education teachers. Simultaneously the USOE is conducting longitudinal studies which describe and measure the impact of programs and projects under Title I.

   Such a store of information will be valuable for decision-making. Nonetheless, two reservations regarding the NIE accumulation and interpretation of data should be kept in mind. First, the present national-level collectors and interpreters of data are as dependent as their unsuccessful predecessors upon local-level and state-level input, though they claim to have taken more precautions and expended more efforts in the collection process in order to procure more reliable data than that collected by previous national surveys. Second, there is some question as to how adequately represented are large-city compensatory education populations in the NIE sample, thus arousing a corollary reservation about the applicability of results to large-city compensatory education programs. With regard to the OE studies, there are some questions as to whether the longitudinal study should be extended in time to assess the lasting impact upon students, and as to whether the study design adequately allows for student/family moves or whether the sample representativeness can be maintained considering the mobility rate of U.S. families.

2. No one can yet state definitively that compensatory education can be evaluated nationally. The validity of local, longitudinal evaluation of achievement is generally established as entirely possible, but national evaluation is recognized as a different animule. Perhaps enough lessons have been learned from faulty evaluations so that present evaluations will be valid enough both to inform about and inform intelligently compensatory education processes and services. At present, one can only await publication of the results and analyses of them.

3. Intensified concern with evaluation and accountability is the order of the day. Until recently, whatever one's opinion of compensatory education, a wealth of data could be found to support it. Compensatory education could be condemned or commended, praised, prodded, or pranged by its evaluators. Recently, however, the evaluators have been taken to task more often than the programs evaluated. In general, local evaluations are considered to be large fiascos, state evaluations larger fiascos, and national evaluations largest fiascos of all. Consequently, there is a call for the establishment of national criteria for evaluation programs and processes. The federal government appears to be responding to that need by initiating and intensifying research efforts to develop and disseminate information about satisfactory evaluation models and techniques. Recent federal legislation has tended to mandate specificities previously left to state and local discretion. Buttressing that tendency is the Congressional mandate requiring not just study of the national scene, but "thorough evaluation and study of compensatory education programs conducted by States" (P.L. 93-380, 1974). Such might be interpreted as federal intrusion and invasion. On the other hand, it might be interpreted as the only course of action left after twelve years of miasmic state- and local-directed evaluations, or as the only way to hurdle State-mounted blockades against evaluation and ultimate accountability.

B. Success/Failure of Compensatory Education

4. The popular idea that compensatory education is a failure seems to be at last waning before the facts. One such major fact recognized is that in many instances the evaluations, not the programs, were weak. The literature agrees that too many evaluations of compensatory education have not taken into consideration the many separate goals and purposes of the programs, and that having measured only one purpose or having established only one criterion (e.g., reading achievement) of success when assessing an entire program, they have necessarily doomed their evaluations to negative results. In addition, the literature points out that, often, evaluation designers' naive lack of understanding as to how local districts operate and their ignoring the effects of an often tactless and blunt imposition of compensatory education staff and program upon an unprepared school affected their evaluation results. Lastly, the literature strongly suggests that the attitude of state departments of education toward evaluation often promoted and abetted its weaknesses and encouraged local districts to do the same.

5. With regard to the overall efficacy of compensatory education services, there is a consensus recognition that compensatory education programs, though aimed at disadvantaged children, have positively affected other children and the education system as a whole. Spotlighting the individual needs of children, fueling other movements toward equality of educational opportunity, recruiting quality personnel for service in education, promoting public/non-public cooperation (parent participation), promoting the evaluation/accountability movement, promoting concern for early childhood education and bilingual education--these are a few of the effects recognized as being positive benefits derived from the foci of compensatory education.

6. Despite the regular, tympani-like thud of calls for reassessing the basic premise that increased funding can increase achievement, the majority opinion seems to be that Federal funding of compensatory education is indeed a permanent policy feature, and that Title I for instance, would never be substantially cut or terminated. Alternative models for improving the achievement level of students and for reallocating control of compensatory education programs are under consideration, but few think in terms of dispensing with Federal funding.

C. Achievement/Poverty Criterion

7. There seems to be a trend toward establishing achievement rather than poverty as the criterion for allocation of funds and services, and proven achievement of previously specified outcomes as the criterion for program and contract continuation. The achievement criterion, of course, is not narrowly defined as reading achievement. Rather, it is a malleable criterion which may be adequately defined in terms unique to the particular compensatory education service--instructional or non-instructional, for instance--to which it is applied.

D. Exemplary Programs and Exemplary Program Features

8. Despite warnings from some sources, there is still considerable convergence toward faith in identifying, accumulating data on and disseminating information about exemplary education programs. At the same time there is a trend toward identifying those specific features which commonly contribute to the success of various exemplary programs, rather than accepting any exemplary program whole-hog as a model to be imitated. For example, the OE five-year Follow Through study of 13 models of "planned variations" discovered that so far no model has shown itself powerful enough to succeed everywhere it has been tried. Each model was successful; but the success of each varied substantially from site group to site group. Because such variations exist, incorporation into programs of features which have been shown as having contributed to the success of various exemplary programs is generally considered to be a wiser approach than total replications of individual

exemplary programs. Five such features are presently being focused upon as ones that significantly affect student achievement and attitude toward school: parental involvement, individualized instruction, amount of instruction, instructional setting, and teacher training. The list surely has no compensatory education hallmark upon it. It brings to mind the idea often enunciated in the literature that what benefits the disadvantaged student benefits all students.

a. Parental involvement. Faith in the efficacy of parental involvement continues unabated. Highly successful exemplary programs which feature parental involvement attest to that faith. Halperin (1975) claims that "the parental partisan movement may well prove to be one of the ESEA's greatest legacies" (p. 149). The NACEDC (1977b) regards parent advisory councils (PACs) as essential in the planning, implementation, and evaluation of local Title I programs (p. 14). They also encourage the Federally funded local and OE efforts invested in inservice training of parents (p. 14).

   The new Handicapped Act (P.L. 94-142) makes parental participation a vital prerequisite for the program. Schools are mandated to actively seek out and involve the parents in planning, implementation, and evaluation of their children's instructional program. It is not that schools proffer parents the opportunity or that representative parent councils are formed. Schools must actively and literally obtain individual parent permission and compliance at every turn.

b. Individualized instruction. Commonly equated with success, so-called individualized instruction is now being called into question more often. A more clear and standardized definition of what is meant by individualized instruction, and clear definition of specific techniques as well as more accurate measurement of their effects are being called for. The NIE survey revealed that reading, language arts, and mathematics teachers generally used only "some" aspects of individualized instruction. Class size rather than specific individualization techniques accounts more for the amount of individualization practiced. For their own studies the NIE has identified and isolated four particular techniques:

   - specific learning objectives assigned to individual children
   - small group or individual pacing
   - diagnosis and individual prescription
   - alternative learning paths and sequencing for individual children

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Again, the new Handicapped Act (P.L. 94-142) has catalyzed a general education concern by mandating individualized educational plans for handicapped children. As McCarthy and Marks (1977) suggest, parents of non-handicapped children could justifiably demand--on the grounds of educational equality--that their children, too, receive programs tailored to each child's need.

c. Instructional setting. In compensatory education this feature is most often concerned with the effects of mainstream versus pullout instruction. Studies of peer influence do not support mainstreaming; studies of ability grouping do not support pullout instruction. To date, as NIE concludes, "Evidence...is sparse and inconclusive" for either method (p. IV-8). Pullout instruction is, however, the predominant method used. Nonetheless, pullout compensatory instruction usually does not replace students' regular instruction in reading, language arts, and/or mathematics.

d. Amount of instruction (instructional time). The literature provides conclusive findings that increased instructional time is quite consistently associated with increased achievement. Questions regarding the effects of time spent away from instruction (e.g., vacations) and how the use of time affects learning (e.g., highly structured time is equated with high achievement) are yet to be decided.

e. Teacher training (specialist vs. regular). The literature frequently indicates that special training of teachers is a characteristic of successful programs, particularly of successful mathematics programs. In-service training is also characteristically associated with successful programs. Unfortunately, the NIE 1976 survey suggests that regular teachers are found in compensatory education more often than specialists, particularly in mathematics classes.

E. Reading and Language Arts

9. The National Assessment of Educational Programs (NAEP) 1976 report summarizes the conclusions of their two national assessments (1970-71 and 1974-75 school years). They ultimately conclude that change has occurred but claim that the change cannot be labelled either entirely positive or entirely negative since the changes are so dependent upon student age and type of reading required. Their conclusions:

- Nine-year-olds during the second assessment read significantly better than did 9-year-olds four years earlier. The improvement was recorded in all reading skills, but was most noteworthy in reference skills.

- Black 9-year-olds improved even more dramatically than did 9-year-olds as a whole. Reading specialists suggested that both increases might be attributed to successful reading intervention programs in the primary grades.

- The reading ability of 13- and 17-year-olds changed little over the four year period. Both ages recorded a slight improvement in literal comprehension, but slight decline in inferential comprehension. Thirteen-year-olds declined in their performance of reference skill items, while 17-year-olds improved on the reference skill items.

- Students of all ages demonstrate little difficulty in comprehending basic, literal, straightforward written material. But comprehension drops off quickly as soon as the reading tasks become more difficult.

- Girls continue to read better than boys at all age levels. (NAEP, 1976, p. xi)

Significant for compensatory education, of course, is the claim that the 9-year-old increases might be attributed to successful reading intervention programs in the primary grades.

With regard to the relationship between reading and four instructional features--individualization, instructional setting, instructional time, and teacher training--the following conclusions may be drawn: (a) In reading only a few specific techniques of individualized instruction appear to be in widespread use, but classes are very small (1-5 students up until grade 7). Pullout classes predominate; only 14.7% of the CE students receive instruction in their regular classrooms. The average student receives about 3 hours and 47 minutes per week in compensatory reading instruction (4 hours, if language arts has a reading component). The highest amount of time is spent in grade 1, the lowest in grade 8. Reading specialists instruct about 75% of the CE students, regular classroom teachers about 60%, aides about 49%.

(b) In language arts only some individualization of instruction occurs. Pullout classes predominate, although 34.5% of the CE students recieve instruction in regular classrooms. The average CE student receives about 4 hours compensatory instruction per week. Regular classroom teachers instruct about 77% of the CE students, specialists about 47%, aides about 67%.[2] Classes are relatively large.

F. Mathematics

10. The NAEP assessment of mathematics does not seem to reveal any correlation between intervention programs and mathematics achievement; however, they have not yet published "A Perspective on Two Assessments"

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[2] Percents sum to more than 100 because teachers may provide instruction in more than one grade.

as they have for reading. In addition, the NAEP surveys the educational attainments for 9-, 13-, and 17-year olds. Whereas CE reading instruction has high participation (57.6% to 63.3%) between grades three and six, CE mathematics instruction participation ranges from 41.5% to 48.4% in the same grades. Thus, there might be a correlation between the NIE participation percentages and the NAEP indication that low-metro and black students steadily and increasingly fell below the national performance level.

Comparison of mathematics and reading within the framework of the four previously-defined instructional features possibly suggests which levels and amounts of those features might indeed affect achievement. (a) Individualization--both reading and math have only some aspects of individualized instruction, but math classes are usually larger than reading classes; (b) instructional setting--pullout classes predominate for both subjects, but 37.4% of CE math students receive instruction in their regular classroom, while only 14.7% of the reading students do; (c) instructional time--CE math students receive about 3 hours of instruction per week, reading students about 4 hours. Grade breakdowns by minutes per week reveal more disparity:

Grades	Math	Reading
1	179	267
2	206	249
3	201	239
4	234	250
5	216	247
6	212	226
7	190	220
8	209	262

(d) teacher training--specialists instruct about 75% of the CE reading, about 49% of the math; regular classroom teachers instruct about 60% of the CE reading, 74% of the math; aides instruct about 49% of the CE reading, 62% of the math.

In sum, CE math students compared with reading students are generally in larger classes, receive more regular classroom instruction (as opposed to pullout), are given less instructional time, and receive instruction more often from regular teachers than from specialists. Most research would agree that their lesser achievement in mathematics would be almost predictable, then.

11. Though considerably more compensatory courses and funding are devoted to reading instruction than to mathematics or language arts, there is not as great a difference between the number of students receiving instruction in the three areas. Of the Title I school districts, approximately 70% offer compensatory reading, 45% mathematics, and 30% language arts. Thus, of the Title I instructional budget, reading receives approximately 53%, mathematics 19%, and language arts 10%. The numbers of compensatory students receiving instruction in

the three areas are less disparate: reading 50.4%, mathematics 44.4%, and language arts 35.0%. In other words, though about the same number of students receive CE math as CE reading instruction, the latter receive almost three times more funding.

G. Migrant Education

12. Though Congress has consistently increased allotments for migrant education ($9.7 million in 1967; $97. million in 1976), and expanded the definition of those eligible to include children of migratory fishermen and formerly migrant children who have been settled for five years ("five-year migrant"), state and local responses have not revealed such a consistent increase and expansion of efforts. State-level administrators are most commonly blamed since they are most directly responsible for migrant education programs. There is even a suggestion that the Commissioner of Education should by-pass the state and work directly with local officials. He has a legal right to do so.

13. For the success of most migrant programs there are certain prerequisites, a number of which are lacking in many school districts:

    a. adequate dissemination to the general public and particularly to school staffs of information regarding the migrant program and the migrant children themselves.

    b. adequate machinery and personnel to conduct a rapid identification and needs assessment of each migrant child (including the "five-year migrant") immediately upon her/his entry into a school and to provide such information to the teachers and other personnel charged with migrant instructional, health, and guidance services.

    c. adequate machinery and personnel to assure proper health and education data transfer into and out of the MSRTS (Migrant Student Record Transfer System).

    d. in those districts where entry and withdrawal cut-off dates prohibit the accumulation of either secondary-level student credits or credit for any accomplished school work, categorical revision of such dates so that the burden of credit accrual may rest upon the already established MSRTS inter-state, inter-school facilities.

    e. adequate data regarding the credits migrant students earn in their various schools, particularly at the secondary level, discovering which are transferrable between schools, which prerequisite, and so on.

f. categorical coordination of testing dates and test instruments, via the MSRTS, so that the work of migrant students may be properly evaluated.

g. development of graduation criteria or regulations relevant to eligibility for the GED which would apply to migrant children (in those states where such is provided for; or request for such in other states).

h. inservice training and workshops for preschool, primary, and secondary teachers and counselors unfamiliar with the migrant program and migrant children's experiences. A major focus of the training should be development of an awareness in regular classroom teachers that through data drawn from the MSRTS and initial needs assessment, they should devise and accomodate into the context of a regular class individual education programs for migrant children similar to those devised for the special needs of handicapped children.

i. sufficient bilingual teachers and probably *maintenance* bilingual classes as opposed to the *transitional* bilingual classes operated by most districts' bilingual programs.

j. development of vocational and career education program components which take into consideration the unique experiences and life-style of migrant students.

Undoubtedly, there are more prerequisites for a good program. Undoubtedly, too, these and other prerequisites are points which should have been or should be established at the state level. But those who are conscientiously concerned with education *per se* and/or migrant student education in their local districts are obviously not overstepping their authority in seeking to establish such prerequisites to development of their own local, successful migrant program,

H. Education of the Handicapped

14. *Implications for all public school programs.* McCarthy and Marks (1977) effectively summarize the implications of P.L. 94-142 for all school programs.

a. *Individualized education plans.* The mandated individualized educational plans for handicapped children could influence instructional offerings for every pupil. Advocates of the "normal" child may begin demanding that all childrens' educational programs be tailored to individual needs. In addition, teachers will have to be retrained, additional human and materials resources will have to be accessible, and school schedules will have to be designed to accomodate extensive parent-teacher conferences.

b. Accountability for pupil progress. The elaborate accountability procedures required to monitor the progress of handicapped children could have far-reaching ramifications on the entire public school program. Educators of the handicapped must assess a handicapped child's level of performance, establish annual goals and short-term objectives, conduct annual progress reviews, and document that such mandates are met. Couldn't the same be demanded for non-handicapped children? As poverty becomes less a criterion than achievement for Title I programs, couldn't handicap become less a criterion than achievement? The lack of accountability for pupil progress has already been contested in several legal battles. Since schools must be accountable for the progress of handicapped children, it seems logical that non-handicapped children should be able to make similar legitimate requests.

c. Parental involvement. The procedural prerequisites and parental involvement required in preparation of each IEP and before a child's IEP is altered also have obvious implications for all public schools. Educators' traditional latitude in making program and placement decisions would be greatly curtailed. Obviously, the provision of procedural prerequisites for every child would place a tremendous financial burden on the schools. However, would it be equitable to guarantee procedural safeguards and parental involvement for the handicapped child while the "regular" child's fate is left totally to the discretion of school officials?

The due process procedures stipulated by P.L. 94-142 require parental input and final approval of decisions regarding identification, evaluation, and placement of a child. However, to prevent some of the abuses that have taken place in the past, despite the existence of legal mandates, two possible methods of assuring that the spirit as well as the letter of the law are implemented have been suggested: (a) creation of a child advocacy agency, and (b) use of Yoshida and Gottlieb's (n.d.) model of parental influence (Chiba and Semmel, 1977, p. 23).

d. Ability grouping. P.L. 94-142 specifies that no single criterion will be the sole determinant of a handicapped child's educational program [Sec. 612 (5) (C)]. This mandate coupled with the requirement that tests with racial or cultural bias cannot be used as a means to place children in special classes could signal the eventual demise of most ability-grouping schemes currently used in public schools.

e. Full services. In order for the "full services" mandate which pervades this statute to become a reality for all students, financial commitments would have to be made by all levels of government; otherwise, a double standard could become institutionalized in public schools: an education meeting minimum standards of adequacy would be required for the "regular" child, while an optimum program designed to meet each child's unique needs and capacities would be required for handicapped children

f. Preschool education. Free public education will be made available to all handicapped children between the ages of 3 and 21 in those states whose school attendance laws do not exclude those age brackets. Parents in states which do exclude those age brackets as well as parents of non-handicapped children are not unlikely to ignore the implications of this feature with regard to their own children.

g. Backlash. P.L. 94-142 mandates for the handicapped student an optimum program involving individualized educational plans, school accountability for pupil progress, procedural safeguards against improper pupil placement, and "full services." The "regular" student may receive only a "regular" program, more standardized than individualized; and, except in cases of flagrant perversion, schools are rarely accountable for individual student placement or progress. Such a double standard could create an unfortunate backlash against efforts to design programs for handicapped children.

15. Mainstreaming: Least restrictive alternative. P.L. 94-142 specifies that placement of children must be determined in a manner consistent with the doctrine of the least restrictive alternative. The gamut of alternatives, of course, extends from state residential institutions to regular classroom programs. The common educational term for the legal concept of the least restrictive alternative is referred to as "mainstreaming." A variation of four administrative models has been generally used in the majority of mainstreaming programs: (a) resource room model; (b) programmed partial integration model; (c) learning disability group model; and (d) combination class model. Chiba and Semmel (1977), however, point out that a disparity exists between the legal and educational perspective, and that effective pupil-by-program interactions must be considered even while complying with P.L. 94-142's "least restrictive alternative."

16. Individualized Education Program (IEP). Superficially described, the IEP is a plan for a child's education prepared by a supervisor, teacher, parent (guardian) and, when appropriate, the child. Many see it as merely a formalization of the diagnostic/prescriptive systems. But as Morrissey and Safer (1977) suggest, there may sometimes be varied opinions about the purpose of the IEP at the local school, LEA, and SEA levels, which, if not clarified and resolved, may jeopardize IEP implementation.

IEP conferences, recordkeeping, and related activities will demand more time from regular and special education teachers, and support and supervisory personnel. For many, new skills must be learned to understand and implement the IEP. Special education administrators may have to open new relationships with directors of elementary and secondary education to ensure coordination of personnel services and facilities. Clear lines of authority, joint responsibility, and accountability may need to be redefined or established.

Those responsible for teacher preservice or inservice training may have to adapt their programs to teach personnel IEP-related skills--skills in assessment, in the projection and writing of appropriate goals and objectives, and in designing an instructional program to meet stated goals and objectives in the regular or special class setting. Obviously, such training could eventually benefit all students with special needs, e.g., migrant students. Ultimately, it could benefit all children.

17. Nondiscriminatory testing provision. P.L. 94-142 does not define what is meant by discriminatory testing. The aim of the act is obvious, however: to avoid EMR (educable mentally retarded) labeling and placement solely on the basis of IQ. Instances of bilingual children, ethnic minority children, and Peck's-bad boys being shunted into EMR classes on the basis of scores from biased or inadequately administered tests or simply by teachers' "experienced" recommendations were too common to be ignored. At present, however, there is generally a negative sentiment toward intelligence testing. It is reflected in P.L. 94-142. California has prohibited the use of intelligence tests. Some critics, however, (e.g., MacMillan and Meyers, 1977) consider this to be "radical surgery" and suggest a more tempered response (p. 47). That response is two-pronged: (a) prohibit testing procedures that violate due process and (b) ensure the competence of examiners.

18. General accountability. P.L. 94-142 burdens the States with a "vast array of detailed, complex, and costly administrative requirements" (President Ford, 1975, n.p.). For instance, handling the complicated fiscal accounting requirements and monitoring the flow-through of federal funds to local and intermediate units may make revisions in state accounting systems inevitable. Most States do not employ a planning, programming, and budgeting (PPB) approach in monitoring the distribution of school funds. P.L. 94-142 may make it a necessary step. Obviously, once a system has been developed and implemented to assure accountability, not only funds to the handicapped but all funding could be percolated through it. The same may be true of other systems of recordkeeping, program monitoring and evaluation which States may establish to meet the requirements of P.L. 94-142. Once established it would be only feasible that all compensatory education programs be percolated through them. The lack of data and comparability of data from various states which plagued earlier national evaluations of compensatory education would no longer stand in the way

of demands for evaluation and accountability. Rather than issuing demands for compensatory education policing policies and data which States were not equipped to supply, Congress seems to have issued demands for policing and data related only to the handicapped. However, States that equip themselves to satisfy those limited demands will, in effect, be equipping themselves to satisfy similar demands related to any compensatory education program or, for that matter, almost any educational program.

19. Teacher training. With the introduction of handicapped children and their IPEs into the regular classroom, inservice teacher training should focus upon teacher competence in three areas: (a) competencies for diagnostic and evaluative assessment; (b) competencies for planning; and (c) instructional skills--not global, generic teacher behaviors, but specific instructional strategies and interpersonal styles that stimulate learning in specific contexts with specific types of learners. New methods of training are preferred to encrusted molds such as the one-day workshop with the invited, entertaining "expert." Teacher centers and inservice workshop sites that continuously provide training and the opportunity for teachers to find and develop their own solutions with the help of specialized consultants and resource collections are considered to be better than classes dominated by the "expert" (Lynch, 1977, p. 86).

I. Federal Role

20. Some of the literature inveighs against the intrusion of the federal government into public education, especially since Congress in particular has seemed so bound and determined to demand full evaluations and full accountability. Accountable itself for the billions of dollars appropriated, Congress has consistently advised and requested from both federal and state offices adequate evaluations of how the money is being spent and how it is ultimately affecting the school children at whom it is aimed. These demands are sometimes interpreted as a federal effort to gain control of the public schools.

21. The literature seems predominantly to insist that local control is a prerequisite of good public schools. Though some suggest that the federal government is seeking to usurp that control, there are strong indications that the federal government does not seek to usurp the local-level control. As a matter of fact, it seems even willing to by-pass state control by placing more fiscal and decision-making powers in the hands of local schools and parents. Handicapped legislation eventually places 75% of state grant money directly in the hands of the LEAs; usually the grants are entirely state controlled. Migrant legislation includes a clause which would allow federal by-passing of state-level authority to deal directly with local authorities.

State-level administrations have been ultimately responsible for the evaluations of compensatory education programs in their states. For twelve years such evaluations seem to have floundered from worse to worser. Such floundering left Congress holding the accountability bag so far as compensatory education funding went. The 1970's literature thus seems to reflect a major effort by Congress to create an evaluation framework to hold that bag upright. They have mandated studies and dissemination of information regarding appropriate evaluation models and processes.

Congress's most recent legislation (e.g., handicapped bills) lists an unprecedented number of specificities which must be abided by, thus supplying specific guidance which the States themselves have so far often failed to supply. But who is to create and police all the paraphernalia of accountability processes mandated? The States. If they don't, they will not receive federal funds but they will still be held accountable under the law for meeting all the specifications of P.L. 94-142--out of their own pockets. What greater incentive could they have for at last holding local school districts accountable?

22. There is the view that the federal government is promoting local control of the schools but seeking to establish accountability procedures which protect the national investment in the public schools. And there is the view that the federal government is involved in shaping educational practices as a matter of national interest. As Semmel and Heinmiller (1977) point out, "Increasingly educational institutions seem to be at the core of 'crises' affecting the delicate balance of our national equilibrium" (p. 13). Whichever view is taken, the fact remains that Federal involvement with the public schools of America has steadily increased and will probably continue to do so.

Additional Information:

AR77-084-8-9 Compensatory Education: A Review of the Literature, 1977, L. Nicora Simmons.

Abstract

Pilot Accreditation Program: Overview

Evaluator: Robert P. Grobe

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as one of the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August 1976).
2. Complete a self assessment (needs assessment) based on the adopted goals. (This report summarizes such a self-assessment.)
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February 1978.)
4. Implement the five-year plan and show evidence of the effects. (To begin in March 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This study was conducted to assist in the identification and prioritization of DISD needs and goals in eight goal areas: (a) intellectual discipline; (b) economic and occupational competence; (c) citizenship and political understanding; (d) physical and environmental health, ecological balance, and safety; (e) fine arts and languages; (f) personal and social relations; (g) use of leisure time; and (h) organizational efficiency. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools.

Sample: For intellectual discipline goals, existing system-wide test data for grades 2, 4, 6, 8, 9 and 12 were used. Therefore, the sample for norm-referenced test data included all tested students in grades 2, 4, 6, 8, 9,

and 12 (exact numbers are listed in the section on "Evaluation Results"). Objectives-referenced test data were collected on all eighth and twelfth grade students who were tested with the Everyday Skills Tests (EST) in reading and mathematics. Subjective survey data were collected concerning language arts, mathematics, social studies, and science. The subjective data sample included: (a) 645 teachers working with mathematics, science, social studies, and language arts; (b) 687 professional personnel other than teachers such as resource teachers, counselors, and principals; (c) 1278 senior students; and (d) 2895 community members. Approximately, two-thirds of the surveys were returned by teachers, other professional personnel, and students; while only ten percent of the surveys were returned by the community.

For other student goal areas, the sample for each instrument in each goal area consisted of 30-60 students selected from two schools in each of five major subdistricts (i.e., sampling without replacement). Surveys or tests for each of the remaining goal areas except organizational efficiency were administered to approximately 500 students. Thus, involving approximately 3,000 students (i.e., 6 goal areas times 500 students). Parent surveys for each of seven goal areas were sent home with approximately 500 students. Thus, involving approximately 3,500 parents (i.e., 7 goal areas times 500 students). The reader should note that the return from the parent community was rather small. Additionally, 300 knowledgeable teachers were asked to complete surveys in each of seven goal areas for a total of 2100 teachers (7 goal areas times 300 teachers).

Furthermore, the nineteen goals related to seven student oriented goal areas were ranked with a Q-sort technique by 300 Operation Involvement teachers, 40 Parent-Teacher Association presidents, 25 Leadership Council members, 25 Executive Team members, and 15 Joint Urban Curriculum Council members.

For the goals relating to organizational efficiency, survey instruments were developed and administered to 440 parents, 396 teachers, 36 building administrators, and 53 central staff administrators.

Evaluation Design: The DISD Board of Education adopted TEA's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). The TEA goals are good in that they are comprehensive. However, in order to insure communication of their meaning to parents and staff, the student development goals were reworded for self-assessment purposes. These reworded goals and the original wording for the organizational efficiency goals are listed below:

GOAL AREAS & GOALS FOR
DALLAS INDEPENDENT SCHOOL DISTRICT
(adapted from "Goals For Public School Education
in Texas," Texas Education Agency, Spring, 1976)

Intellectual Discipline

1. Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.

2. Students should have skills in learning how to learn, such as the processes of evaluating information and solving problems in their lives.

3. Students should have the ability to work and learn by themselves.

Economic & Occupational Competence

4. Students should have knowledge of the American economic system and how each person can participate and succeed in the system.

5. Students should have skills in preparing for and entering the World of Work.

6. Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.

Citizenship & Political Understanding

7. Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.

8. Students should know how to affect decisions made by political groups, such as by voting or through community involvement.

9. Students should be able to determine the political views of a candidate and the advantages and disadvantages to having that candidate in office.

Physical & Environmental Health, Ecological Balance, & Safety

10. Students should know about (a) the need for personal cleanliness, (b) the need to eat a properly balanced meal, (c) the need for physical exercise, and (d) dangers to health from drugs, tobacco, poison, and other harmful materials.

11. Students should have skill in those sports and other physical activities which can be continued throughout their lives, such as tennis, swimming, fishing, and hunting.

12. Students should be able to recognize and help to minimize (a) environmental problems which threaten health, livelihood or emotion well-being; and (b) physical and mental health problems and the factors contributing to them.

13. Students should have knowledge of good personal safety practices.

Fine Arts & Language

14. Students should have knowledge of the art, music, and writings of groups different from their own group.

15. Students should be able to communicate in a language other than English.

Use of Leisure Time

16. Students should be able to make good use of leisure time.

Personal and Social Relations

17. Students should have knowledge of how and why people act and behave as they do.

18. Students should have skills in getting along with other people and in developing moral standards.

19. Students should be able to make necessary changes in their lives as times change.

Organizational Efficiency

20. The learning process should take into consideration the personal goals of every student and should be designed so that each can achieve the educational standards of the system and be encouraged to remain in school until ready for a post high school career.

21. Professional faculty members should be consulted in the decision-making processes for implementing the educational goals of the system and determining the environmental conditions in which they work.

22. The personnel program of recognition and rewards should be designed to attract and retain highly competent people.

23. The educational system should be organized and conducted so as to achieve maximum cost-benefit results from efficiencies in process and economies of scale within size limitations which will make units of the system responsive and accountable to parents and citizens.

In addition, the breadth of the topics included within each goal required some additional specificity. A series of goal indicators was used to focus each of the rather general goals. Take, for example, the TEA goal related to citizenship (see Table 1). That goal was focused by goal indicators which included specific information such as whether the students know where to register to vote and whether they know their civil rights. The development of such goal indicators was accomplished through a cooperative effort of instructional and evaluation personnel. Personnel within the subject area disciplines were presented with the goals associated with their area of expertise and instructions to write the indicators for each goal in their area. Additional meetings between personnel of the Instructional Service Department and the evaluation personnel narrowed the list of indicators in each goal area to a workable number.

Table 1

Sample TEA Goal and Selected Goal Indicators

GOAL 7. Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.

SELECTED GOAL INDICATORS. The following should be included in DISD schools:

1. Information about governments which have limited freedom for citizens.
2. Information about the economic and political meanings of communism and socialism.
3. Information about the rights guaranteed by the American Constitution.
4. Information about how to register to vote.

In planning and implementing such a self-assessment, the TEA guidelines for the self-study (Office of Planning and Evaluation, 1976) were used to focus our own set of idiosyncratic procedures. It should be noted that the TEA guidelines deal with two types of data -- program and student outcome. Program data are generally used in relation with the typical type of accreditation (i.e., checking against principles and standards). Comments in this study will therefore focus on the collection and use of student outcome data.

Instrumentation for the self-assessment consisted of both subjective surveys and objective tests. Subjective instrumentation also included the use of a Q-sort for ranking the 19 TEA, student-outcome oriented goals.

Instrumentation for the intellectual discipline goal area consisted of both objective tests and subjective surveys. Objective test data were summarized from the system-wide testing efforts in DISD. This included both norm-referenced test data (i.e., ITBS and ITED) and objectives-referenced test data (i.e., Everyday Skills Tests). The ITBS and ITED from which intellectual discipline information was summarized were administered in September, 1976. For more specific information the reader should refer to the Norm-referenced Performance Profiles (Whitmore & Meier, 1977) and the Norm-referenced Measurement Profiles (Whitmore & Meier, 1977).

Objectives-referenced test (i.e., Everyday Skills Test) data summarized in this report were collected from tests administered to the eighth grade in February, 1977, and to the twelfth grade in March, 1977. These tests measured student achievement as related to a series of reading and mathematics objectives. For a more detailed description of the Everyday Skills Test as well as a list of objectives for each topic, the reader should refer to an evaluation report by Davis (July, 1977).

Subjective data for intellectual discipline summarized in this report were originally collected in another study (Lym, 1975), but since the data relate directly to intellectual discipline the decision was made not to collect new data. In the study a different form of the survey instrument was designed for each subject area (i.e., language arts, mathematics, social studies, science) and target population (i.e., teachers, other professional personnel, students, community); thus, yielding 16 different forms.

Ratings of importance and perceived attainment were requested for each of two subclasses of skills, those termed "basic" and those referred to as "higher-order." Basic skills were defined as those which should be possessed by any student leaving the system, whether as a graduate or a dropout. Higher-order skills, on the other hand, were defined as those requiring a higher level of cognition such as that which might be expected for entrance into college. Specific examples, but not a comprehensive list, were given for each subclass of skills. As an example of the survey format, the following was taken from the instrument for language arts.

Important for						Learned by					
No Students	Few Students	Some Students	Most Students	All Students	1. LISTENING	No Students	Few Students	Some Students	Most Students	All Students	Don't Know
1	2	3	4	5	Basic: Listen carefully and follow spoken directions. Recall what was said. Tell the difference between fact and opinion.	1	2	3	4	5	DK
1	2	3	4	5	Higher-Order: Accurately summarize the content of a spoken message. Follow the sequence of ideas in a spoken message. Understand non-literal and figurative speech.	1	2	3	4	5	DK

For goal areas other than intellectual discipline, subjective instrumentation was developed utilizing the goal indicators agreed upon by personnel within the Instructional Services Department and Research, Evaluation and Information Systems Department. Objective tests were developed either by evaluation personnel with approval by the Instructional Services Department or vice versa.

Surveys were administered in April 1977 to obtain subjective data about specific goal indicators. Subjective data were collected in seven other goal areas: (a) economic and occupational competence; (b) citizenship and political understanding; (c) physical and environmental health, ecological balance, and safety; (d) fine arts and languages; (e) personal and social relations; (f) use of leisure time; and (g) organizational efficiency. To collect such data, ratings of importance and degree of emphasis were requested. As an example of the survey format, the following was taken from the instrument for citizenship and political understanding:

Sample Items From a Subjective Survey

HOW IMPORTANT IS IT THAT DISD TEACH THESE?					HOW MUCH EMPHASIS SHOULD DISD PUT ON THESE?			
Not Necessary	Slightly Necessary	Moderately Necessary	Very Necessary		No Emphasis	Slight Emphasis	Moderate Emphasis	Heavy Emphasis
1	2	3	4	(1) Information about governments which have limited freedom for citizens. For example, governments ruled by dictators, kings, or one political party.	1	2	3	4
1	2	3	4	(2) Information about the economic meanings of communism and socialism. For example, the means by which goods and services are produced and owned by the community as a whole, not by individual citizens.	1	2	3	4

Additionally, objective tests were based upon goal indicators developed for the following goal areas: (a) economic and occupational competence; (b) citizenship and political understanding; (c) physical and environmental health, ecological balance and safety; and (d) use of leisure time. These objective tests were administered in April 1977.

For this needs assessment, the analysis consisted of rather simple data analysis techniques. Basically, the analysis included the calculation of ranks, means, differences, frequencies and percentages.

Evaluation Results: As an introduction to the results let us examine some rankings among the 19 student-outcome oriented goals. These goals can be ranked with two schemes. The first is based on a Q-sort technique which ranks them in terms of their importance in a good educational program. The second is based on a combination of the survey discrepancy and need index. This second scheme ranks the goals in terms of the need for improvement and additional emphasis. The eight top ranked goals for both ranking schemes are listed on the following page:

Eight Top-Ranked Goals

Using a Q-sort	Using a Survey Discrepancy and Need Index
1. Basic skills (Goal 1)	1. Basic skills (Goal 1)
2. Learning how to learn (Goal 2)	2. Learning how to learn (Goal 2)
3. Preparing for and entering the world of work (Goal 5)	3. Social skills and moral standards (Goal 18)
4. Work and learn independently (Goal 3)	4. Preparing for and entering the world of work (Goal 5)
5. Handle own economic affairs (Goal 6)	5. Work and learn independently (Goal 3)
6. Know health guidelines (Goal 10)	6. Handle own economic affairs (Goal 6)
7. Social skills and moral standards (Goal 18)	7. Know health guidelines (Goal 10)
8. Know about rights and duties of a citizen (Goal 7)	8. Determine views of candidate (Goal 9)

Of interest in the two ranking schemes is that nearly the same goals appear in both rankings. The only real difference between the two rankings is that development of social skills and moral standards (Goal 18) is ranked much higher using the survey discrepancy and need index, than with the Q-sort.

Table 2 should serve to focus your attention on some of the more important goals. This table lists the goals and identifies with a red flag some of the goals which warrant closer scrutiny or deserve special consideration. Additionally, some reasons for the red flag are delineated. These reasons are usually summary statements which can be verified in Table 3. The reader should note that the term "red flag" is used since it symbolically represents a danger signal; however, the "red flag" will not literally be red.

TABLE 2

RED FLAG SUMMARY TABLE FOR STUDENT
DEVELOPMENT AND ORGANIZATIONAL EFFICIENCY GOALS

GOAL AREAS & GOALS	RED FLAG	REASONS FOR RED FLAG
INTELLECTUAL DISCIPLINE		
1. Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.	⚑	a. Ranked number 1 with Q-sort b. Disparity between subjective data and objective data; i.e., subjective data suggest that language arts should be a top priority need, while objective data indicate mathematics is more in need of remediation. c. Downward trend in norm-referenced achievement data.
2. Students should have skills in learning how to learn, such as the process of evaluating information and solving problems in their lives.	⚑	a. Ranked number 2 with Q-sort. b. Survey discrepancy relatively high.
3. Students should have the ability to work and learn by themselves.	⚑	a. Ranked number 4 with Q-sort. b. Survey discrepancy relatively high.
ECONOMIC & OCCUPATIONAL COMPETENCE		
4. Students should have knowledge of the American economic system and how each person can participate and succeed in the system.	⚑	a. Objective-referenced test data relatively low; i.e., in Table 3 notice that among the economic and occupational goals this is the lowest.
5. Students should have skills in preparing for and entering the World of Work.	⚑	a. Ranked number 3 with Q-sort; ranked number 4 with Need Index. b. Interesting that objective-referenced data relatively good, although probably not at a mastery level.
6. Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.	⚑	a. Q-sort rank number 5; Need Index rank number 6. b. Objective referenced data relatively good, although probably not at a mastery level.

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[a] The term "red flag" is used since it symbolically represents a warning or danger signal; however; the "red flags" will not literally be red.

TABLE 2

RED FLAG SUMMARY TABLE FOR STUDENT DEVELOPMENT AND ORGANIZATIONAL EFFICIENCY GOALS

Page 2.

GOAL AREAS & GOALS	RED FLAG	REASONS FOR RED FLAG
CITIZENSHIP & POLITICAL UNDERSTANDING		
7. Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.	⚑	a. Ranked number 8 with Q-sort b. Objective-referenced data relatively good, but probably not at a mastery level.
8. Students should know how to affect decisions made by political groups such as by voting or through community involvement.		
9. Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.	⚑	a. Ranked number 8 with Need Index. b. Objective-referenced data relatively good, but probably not at a mastery level.
PHYSICAL & ENVIRONMENTAL HEALTH ECOLOGICAL BALANCE & SAFETY		
10. Students should have knowledge of personal health including topics such as hygiene, nutrition, bodily functions, and dangers of addictive materials and drugs.	⚑	a. Ranked number 6 with Q-sort; ranked number 7 with Need Index. b. Objective-referenced test data relatively good, but probably not at a mastery level.
11. Students should have skill in those sports and other physical activities which provide exercise throughout their lives, such as tennis, swimming, etc.		
12. Students should be able to recognize and minimize: (a) environmental problems which threaten health, livelihood, or emotional well-being; and (b) physical and mental health problems and the factors contributing to them.		
13. Students should have knowledge of good personal safety practices.		

TABLE 2

RED FLAG SUMMARY TABLE FOR STUDENT DEVELOPMENT AND ORGANIZATIONAL EFFICIENCY GOALS

page 3.

GOAL AREAS & GOALS	RED FLAG	REASONS FOR RED FLAG
FINE ARTS & LANGUAGE		
14. Students should have knowledge of the art, music, and writings of groups different from their own group.		
15. Students should be able to communicate in a language other than English.		
USE OF LEISURE TIME		
16. Students should be able to make good use of leisure time.		
PERSONAL & SOCIAL RELATIONS		
17. Students should have knowledge of how and why people act and behave as they do.		
18. Students should have skills in getting along with other people and in developing moral standards.	🚩	a. Ranked number 7 with Q-sort; ranked number 3 with Need Index.
19. Students should be able to make necessary changes in their lives as times change.		

TABLE 2

RED FLAG SUMMARY TABLE FOR STUDENT DEVELOPMENT AND ORGANIZATIONAL EFFICIENCY GOALS

GOAL AREAS & GOALS	RED FLAG	REASONS FOR RED FLAG
ORGANIZATIONAL EFFICIENCY		
20. The learning process should take into consideration the personal goals of every student and should be designed so that each can achieve the educational standards of the system and be encouraged to remain in school until ready for a post high school career.		
21. Professional faculty members should be consulted in the decision-making processes for implementing the educational goals of the system and determining the environmental conditions in which they work.		
22. The personnel program of recognition and rewards should be designed to attract and retain highly competent people.	⚑	a. Many teachers are not very positive about the system of recognition and rewards.
23. The educational system should be organized and conducted so as to achieve maximum cost-benefit results from efficiencies in process and economies of scale within size limitations which will make units of the system responsive and accountable to parents and citizens.		

Before continuing further the summary statistics used to report the results in Table 3 will be defined. The reader should consult Table 3 as he reads this section since this discussion will use that table for illustrations.

For the Iowa Tests of Basic Skills (ITBS) and Iowa Tests of Educational Development (ITED), the summary statistic used is the percent of students scoring at or above the fiftieth percentile (Large City Norms). If the population of Dallas students were identical to the group used in developing percentile norms for the tests, we would expect 50 percent of our students to be at or above the fiftieth percentile. Thus, percentages lower than 50 percent indicate that Dallas students are achieving at a lower level than the norm group; while percentages higher than 50 percent suggest a level of achievement higher than the norm group.

For the Everday Skills Test, the summary statistic is the percent of students getting a certain number of items correct. More specifically, we took the 45 items on each subtest and divided those 45 items into five intervals (i.e., 0-9, 10-19, 20-29, 30-39, and 40-45). Then we tallied the number of students who got a raw-score of 0 through 9 and calculated the percent of students in that interval (e.g., 1.8 percent for eighth grade reading). This process was repeated for each interval.

For the objective-referenced tests relating to Goals 4 through 19, the summary statistic used is the percent of students attaining different mastery criterions. As an example look at Goal 4 in Table 3 (p. 15). Notice that if we define mastery on the test for Goal 4 at a relatively easy level of 1/4 the items correct (i.e., 25 percent), then we see that 88% of the students attain such a mastery level. However, if we define mastery at a more difficult level of 1/2 the items correct (i.e., 50 percent), then 53% of the students achieve such a criterion. For mastery levels of 3/4 of the items correct (i.e., 75 percent) and all of the items correct (i.e., 100 percent), we see that, respectively, 16 percent and 1 percent of the students achieve such criteria.

Three types of summary statistics are used to report the subjective data. A Q-sort technique is used to develop a ranking scheme for all 19 student-outcome oriented goals. As noted in Table 3, ranks are reported for Parent-Teacher Association (PTA) Presidents, Operation Involvement (OI) Teachers, a group of administrators who are members of the Leadership Council, high-level administrators who are members of the Executive Team, and a statewide group of curriculum and instructional personnel who are members of the Joint Urban Curriculum Council (JUCC). In addition, an overall rank has been calculated by ranking the mean ranking for the groups mentioned.

For intellecutal discipline, subjective survey data, the summary statistic is called a survey discrepancy (see Table 3, p. 14). A survey discrepancy is defined as the difference between the mean for importance and the corresponding mean for perceived attainment. Since the importance scale range was from 1 to 5 with 5 representing the most important and the attainment scale range was from 1 to 5 with 5 representing the most attained, we can see that the largest survey discrepancy would be 4 (i.e., 5 minus 1) and the smallest would be a negative 4 (i.e., 1 minus 5). Conceptually, skills with a positive survey

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TABLE 3

OBJECTIVE AND SUBJECTIVE DATA FOR TWENTY-THREE GOALS

GOAL AREAS & GOALS	OBJECTIVE TEST DATA	SUBJECTIVE DATA
INTELLECTUAL DISCIPLINE 1. Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades	Iowa Tests of Basic Skills (Grades 2, 4, 6, & 8) and Iowa Tests of Educational Development (Grades 9 & 12):	Q-Sort Ranks

Number and Percent of Students Scoring At or Above the 50th Percentile

Grade	No.	V[a]	W	R	L	M	
2	10,279	41.7	42.6	45.7	36.4	38.3	
4	9,384	30.1	30.4	28.6	24.3	22.1	
6	10,214	27.7	27.0	27.0	23.1	20.0	
8	10,335	25.2	25.7	24.7	25.7	20.6	
		R[b]	L	M	SS	S	U
9	10,006	25.2	28.6	35.2	27.1	20.3	25.6
12	6,994	36.5	35.0	35.5	30.9	36.0	40.2

Everyday Skills Test

Test/ Grade	No.	Percent of Students Within Each Interval 0-9	10-19	20-29	30-39	40-45
Reading						
8	9,669	1.8%	9.0%	15.5%	40.7%	33.0%
12	5,901	0.3%	1.5%	3.3%	19.5%	75.4%
Math						
8	9,577	5.4%	31.6%	36.6%	22.7%	3.6%
12	5,900	0.8%	8.4%	23.6%	38.2%	28.9%

Q-Sort Ranks

Overall Rank	PTA Pres.	O.I. Teachers	Leadership Council	Exec. Team	JUCC
1	1	1	1	1	1

Survey Discrepancies[c]

For Language Skills.	1.32
For Mathematics Skills:	0.85
For Social Studies Skills:	1.26
For Science Skills:	0.99
For All Subject Areas:	1.10

[a] ITBS Tests
V = Vocabulary
W = Work-Study Skills
R = Reading Comprehension Skills
L = Language Skills
M = Mathematics Skills

[b] ITED Tests
R = Reading
L = Language Arts
M = Mathematics
SS = Social Studies
S = Science
U = Use of Sources

[c] The reader should remember that a survey discrepancy is defined as the "Importance Mean" minus the "Attainment Mean" and that survey discrepancies are only used with Intellectual Discipline Goals.

Table 3 (Cont'd.)
Page 2

GOAL AREAS & GOALS	OBJECTIVE DATA							SUBJECTIVE DATA						
	Grade	No. of Students	No. of Items	Percent of Students Attaining Different Mastery Criterions:				Q-Sort Ranks						Survey Discrepancy
				25% of Items Correct	50% of Items Correct	75% of Items Correct	100% of Items Correct	Over-All Rank	PTA Pres.	O.I. Teachers	Leader-ship Council	Exec. Team	JUCC	
2. Students should have skills in learning how to learn, such as the process of evaluating information and solving problems in their lives.				NC[e]				2	2	2	2	2	2	1.40
3. Students should have the ability to work and learn by themselves				NC				4	4	4	7.5	4.5	3	1.30
ECONOMIC & OCCUPATIONAL COMPETENCE														Need Index[d]
4. Students should have knowledge of the American economic system and how each person can participate and succeed in the system.	12	400	23	88%	53%	16%	1%	9	9	9	7.5	8.5	6.5	12.6
5. Students should have skills in preparing for and entering the World of Work.	12	400	15	99%	92%	67%	21%	3	3	3	3	3	6.5	13.4
6. Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.	12	400	12	97%	75%	30%	0%	5	6	7	7.5	4.5	4.5	12.9

[d] A need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. Need indexes in the 12 to 16 range indicate that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high priority on the goal. Need indexes in the 1 to 4 range would indicate a need to reduce the effort devoted to a goal.

[e] Data were not collected.

Table 3 (Cont'd.)
Page 3

GOAL AREAS & GOALS	OBJECTIVE DATA							SUBJECTIVE DATA						
				Percent of Students Attaining Different Mastery Criterions:				Q-Sort Ranks						
	Grade	No. of Students	No. of Items	25% of Items Correct	50% of Items Correct	75% of Items Correct	100% of Items Correct	Over-All Rank	PTA Pres.	O.I. Teachers	Leader-ship Council	Exec. Team	JUCC	Need Index
CITIZENSHIP & POLITICAL UNDERSTANDING														
7. Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.	8	536	38	97%	65%	16%	0%	7.5	8	8	5	8.5	4.5	12.5
	12	394	48	100%	84%	43%	1%							
8. Students should know how to affect decisions made by political groups, such as by voting or through community involvement.	8	536	5	84%	60%	36%	11%	10.5	10	13	13.5	11	11	12.5
	12	394	5	88%	72%	49%	18%							
9. Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.	8	536	6	92%	79%	36%	14%							
	12	394	7	92%	80%	49%	19%	16	15.5	16	17.5	14.5	13	12.8

Table 3 (Cont'd.)
Page 4

GOAL AREAS & GOALS	OBJECTIVE DATA							SUBJECTIVE DATA						
				Percent of Students Attaining Different Mastery Criterions:				Q-Sort Ranks						
	Grade	No. of Students	No. of Items	25% of Items Correct	50% of Items Correct	75% of Items Correct	100% of Items Correct	Over-All Rank	PTA Pres.	O.I. Teachers	Leader-ship Council	Exec. Team	JUCC	Need Index
PHYSICAL & ENVIRONMENTAL HEALTH ECOLOGICAL BALANCE & SAFETY														
10. Students should have knowledge of personal health including topics such as hygiene, nutrition, bodily functions, and dangers of addictive materials and drugs.	6	831	17	95%	57%	10%	0%	6	5	6	7.5	6	9	12.8
	12	452	17	98%	82%	31%	1%							
11. Students should have skill in those sports and other physical activities which provide exercise throughout their lives, such as tennis, swimming, etc.	6	831	2		72%		20%	19	18	18	17.5	19	16.5	11.5
	12	452	2		84%		29%							
12. Students should be able to recognize and minimize: (a) environmental problems which threaten health, livelihood, or emotional well-being; and (b) physical and mental health problems and the factors contributing to them.	6	831	24	97%	47%	2%	0%	14	12	14	13.5	16	11	11.3
	12	452	24	98%	76%	23%	0%							
13. Students should have knowledge of good personal safety practices.	8	831	10	93%	68%	10%	0%	12	11	11	15	11	14	12.6
	12	452	10	97%	85%	28%	3%							

Table 3 (Cont'd.).
Page 5

GOAL AREAS & GOALS	OBJECTIVE DATA							SUBJECTIVE DATA						
				Percent of Students Attaining Different Mastery Criterions:				Q-Sort Ranks						
	Grade	No. of Students	No. of Items	25% of Items Correct	50% of Items Correct	75% of Items Correct	100% of Items Correct	Over-All Rank	PTA Pres.	O.I. Teachers	Leader-ship Council	Exec. Team	JUCC	Need Index
FINE ARTS & LANGUAGE														
14. Students should have knowledge of the art, music, and writings of groups different from their own group.				NC				17	15.5	15	16	17	18.5	11.3
15. Students should be able to communicate in a language other than English.				NC				18	14	19	19	18	18.5	12.2
USE OF LEISURE TIME														
16. Students should be able to make good use of leisure time.	12	242	96	98%	71%	14%	0%	15	19	17	12	11	16.5	9.9
PERSONAL & SOCIAL RELATIONS														
17. Students should have knowledge of how and why people act and behave as they do.				NC				13	13	12	10.5	14.5	15	11.5
18. Students should have skills in getting along with other people and in developing moral standards.				NC				7.5	7	5	4	7	11	13.5
19. Students should be able to make necessary changes in their lives as times change.				NC				10.5	17	10	10.5	13	8	11.7

Table 3 (Cont'd.)
Page 6

GOAL AREAS & GOALS

ORGANIZATIONAL EFFICIENCY

20. The learning process should take into consideration the personal goals of every student and should be designed so that each can achieve the educational standards of the system and be encouraged to remain in school until ready for a post high school career.

21. Professional faculty members should be consulted in the decision-making processes for implementing the educational goals of the system and determining the environmental conditions in which they work.

22. The personnel program of recognition and rewards should be designed to attract and retain highly competent people.

23. The educational system should be organized and conducted so as to achieve maximum cost-benefit results from efficiencies in process and economies of scale within size limitations which will make units of the system responsive and accountable to parents and citizens.

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[f] The Likert-scale used to collect data for organizational efficiency was strongly disagree = 1, disagree = 2, agree = 3, and strongly disagree =

OBJECTIVE TEST DATA	SUBJECTIVE DATA Mean Likert-Scale Rating[f]: Parents	Teachers	Building Administrators	Central Administrators
NC	3.0	NC	NC	NC
NC	NC	2.9	3.2	3.0
NC	NC	2.6	3.0	3.1
NC	2.9	3.0	3.1	3.0

4.

discrepancy were those for which the existing educational system was viewed as not meeting its expectations, while skills with a negative survey discrepancy were those for which the system was more than meeting its expectations.

For subjective survey data on Goals 4 through 19, the summary statistic used is called a need index (see Table 3, pp. 15-18). Intuitively a need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. Need indexes in the 12 to 16 range indicate that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high need for improvement on that goal. Need indexes in the 1 to 4 range would indicate a need to reduce the effort devoted to a goal.

A need index is calculated by first ranking the way a person responds to the items on the survey. More specifically, a person's responses are ranked as follows:

If a person marks an item or indicator as:	Then that item receives a rank of:
Very Important & Lot More Emphasis..........................	16
Moderately Important & Lot More Emphasis....................	15
Slightly Important & Lot More Emphasis......................	14
Very Important & Little More Emphasis.......................	13
Moderately Important & Little More Emphasis.................	12
Slightly Important & Little More Emphasis...................	11
Not Important & Lot More Emphasis...........................	10
Not Important & Little More Emphasis........................	9
Very Important & Little Less Emphasis.......................	8
Very Important & Lot Less Emphasis..........................	7
Moderately Important & Little Less Emphasis.................	6
Slightly Important & Little Less Emphasis...................	5
Not Important & Little Less Emphasis........................	4
Moderately Important & Lot Less Emphasis....................	3
Slightly Important & Lot Less Emphasis......................	2
Not Important & Lot Less Emphasis...........................	1

After the responses for each item are ranked, a mean rank is calculated. A need index is defined as that mean rank.

For the organizational efficiency goals, the summary statistic used is a mean Likert-scale rating (see Table 3, p.19). To obtain such a mean rating, several statements addressing each goal were rated with a four-choice, Likert scale (i.e., strongly disagree = 1, disagree = 2, agree = 3, strongly agree = 4). Next, mean ratings were calculated for each goal.

Table 3 presents objective test data and subjective survey data side by side. This type of presentation reveals a possible disparity between priorities indicated by the student test scores and the opinions stated by different groups. Mathematics scores on the Iowa Tests of Basic Skills (ITBS) are lower than those for subtests related to language skills at all but grade two. Note that at grade two, 36.4 percent of the students score at or above the fiftieth percentile on the language subtest, while 38.3 percent score at or above the fiftieth percentile on the mathematics subtest. Furthermore, summary scores on the Everyday Skills Mathematics Test are lower than those on the Everyday Skills Reading Test. This information suggests that mathematics should receive a higher priority than reading and language arts. However, opinions reflected by the subjective surveys indicate that the different groups choose language arts as the most in need of improvement. As noted in Table 3 "Language" has the largest positive discrepancy, while "Mathematics"has the smallest positive discrepancy.

A trend which may be noted by examining the ITBS and ITED summary data in Table 3 is the apparent downward trend in all subtest scores until the twelfth grade. More detailed information relating to this trend can be found in the Norm-referenced Performance Profiles (Whitmore & Meier, 1977) and the Pilot Accreditation Program: Intellectual Discipline report (Grobe, 1977).

The summary data presented in Table 3 for both the Reading and Mathematics tests of the Everyday Skills Test reveal a general improvement from the eighth to the twelfth grade. This improvement is particuarly encouraging for the reading test with 75.4% of the students scoring 40 to 45 out of a possible 45. While improvement in summary scores from the eighth grade to the twelfth grade for the mathematics test is obvious, there is still plenty of room for improvement as only 28.9 percent of the students scored 40 to 45 out of a possible 45. Such improvement is encouraging; however, we must keep this in perspective by remembering that these are essential skills being tested. Thus, we need to work towards assisting students to score even higher on these tests of basic skills. More detailed information relating to the Everyday Skills Test can be found in a report by Davis (1977) and the report on intellectual discipline (Grobe, 1977).

In reviewing the survey discrepancies presented in Table 3 (on page 14), we can note a trend already alluded to which is worthy of a second mention. Language related skills receive a relatively high positive survey discrepancy (i.e., high priority), while mathematics related skills receive the smallest positive survey discrepancy. While not presented in Table 3, it is of interest to note that community discrepancies are the highest for all subject areas. This suggests that the community, more than any other group, perceives the Dallas educational system as not meeting its expectations.

Relative to the goals concerning economic and occupational competence, the objective-referenced test data in Table 3 suggest that the students have the most knowledge about entering the world of work (Goal 5) and the least about more theoretical economics (Goal 4). To verify this statement note in Table 3 that 92 percent of the students attain a criterion of one-half the items correct for Goal 5, while 53 percent attain the same criterion for Goal 4.

Close scrutiny of the subjective data for this goal area indicates that two of these goals were perceived as being among the highest priorities. Specifically, Goal 5 and Goal 6 were ranked numbers 3 and 5, respectively, with the Q-sort; while they were ranked numbers 4 and 6, respectively, with Need Indexes of 13.4 and 12.9, respectively.

Relative to the goals concerning citizenship and political understanding, Table 3 reveals that as expected the eighth grade students score lower than the twelfth grade. In general, student scores are highest for knowledge about rights and duties of citizens and politics and government in this country (Goal 7), while the scores are lowest concerning how to affect political decisions (Goal 8). However, it should be noted that the differences among the three citizenship and political understanding goals are not very great. For example, at the twelfth grade, 84 percent of the students get at least half the items correct for Goal 7, while 72 percent and 80 percent attain the same criterion for Goal 8 and Goal 9, respectively. Examining the subjective data reveals that two of these goals were viewed as being moderately important among the goals. That is, Goal 7 was ranked number 8 with the Q-sort and Goal 9 with a Need Index of 12.8 was ranked number 8.

Relative to the goals concerning physical and environmental health, ecological balance, and safety, the objective-referenced test data in Table 3 suggest that students have the most knowledge about personal safety practices (Goal 13). To verify this, note that at the twelfth grade 85 percent of the students get at least half the items correct. It should, however, be noted that the differences among the four goals for this area are relatively small (i.e., at the twelfth grade for half the items correct Goal 10 = 82 percent, Goal 11 = 84 percent, Goal 12 = 76 percent, and Goal 13 = 85 percent). In this goal area only Goal 10 (i.e., know about health guidelines) is subjectively ranked in the top eight. Goal 10 is ranked number 6 with the Q-sort and a Need Index of 12.8 gives Goal 10 a rank of 7.

As noted in Table 3, no objective data were collected relative to the fine arts and language goal area. Subjective data reveal that the two goals in this area (i.e., Goal 14 and Goal 15) are ranked among the lowest. The overall Q-sort rank for Goal 14 was number 17, while the Need Index was also number 17. For Goal 15 the overall Q-sort rank was number 18; while with a Need Index of 12.2, Goal 15 ranked number 12.

The objective data presented relative to use of leisure time (Table 3) suggest that students have some knowledge relating to the area. Notice that 98 percent of the students get at least one-fourth of the items correct and 71 percent get at least half of the items correct, but that only 14 percent get three-fourths of the items correct. Even though 14 percent seems low, it may be entirely adequate. As support for such a statement, the subjective data suggest that groups perceive this goal area as relatively low in importance with an overall Q-sort rank of 15. Furthermore, the need index was 9.9 which ranked nineteenth out of 19. The reader might consider whether it is the school's function to educate all students in effectively utilizing their leisure time.

As noted in Table 3, no objective data were collected for the personal and social relations goal area. Subjective data reveal that development of social skills and moral standards (Goal 18) is ranked rather high among all other goals, while the other two goals in this area (i.e., Goals 17 and 19) are ranked fairly low. Goal 18 is ranked number 7 with the Q-sort and with a Need Index of 13.5 it is ranked number 3.

Subjective data which were collected relative to organizational efficiency consisted of Likert-scale ratings. Examining Table 3 reveals that most groups indicated a positive attitude toward DISD efforts related to organizational efficiency. As verification of this statement notice that most of the mean Likert-scale ratings are around "3" which correspond to an "agree" response. The only exception seems to be the teacher response concerning the personnel program for recognition and rewards (i.e., the Likert-scale mean rating is 2.6).

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

ST77-119-8-12 Validation of the Secondary Literacy Testing Program in Reading and Mathematics, 1977, Robbie G. Davis.

75-562 System-wide Assessment 1974-75: Students and Educators, 1975, C. LaVor Lym, 45 pages.

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IE77-071-3-7

Abstract

Pilot Accreditation Program:
Economic and Occupational Competence

Evaluator: Thomas C. Holland

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD) along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended students outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August, 1976.
2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the three goals relating to Economic and Occupational Competence.)
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.
4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of economics and occupational competence. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools.

Sample: Subjective survey instruments relating to the three goals concerning Economic and Occupational Competence were administered to parents, teachers and students. In addition, cognitive tests were designed to measure student knowledge associated with the three Economic and Occupational Competence goals and were administered to twelfth grade students.

The sampling procedure for selection of high school respondents to receive the subjective instruments consisted of a purposive sample of District high schools. Schools were selected as recipients of the instrument based on their having the appropriate number of students. A given number of instruments (both Student Surveys and Parent Surveys) were delivered to each school and school administrators were required to choose a sample of students which they considered to be representative of the population of the school. A portion of this student sample was asked to respond to the Student Surveys, and the remaining portion was asked to take the Parent Surveys home to be completed and returned. A total of 258 Student Surveys and 179 Parent Surveys were administered at ten high schools.

Teachers at each school within the District were surveyed using the subjective Teacher Survey on Economic and Occupational Competence. A small number of surveys (2-4) were given to each principal with the directive that they be given to knowledgeable and involved teachers. Three hundred seventy-eight Teacher Surveys were returned using this method.

Cognitive tests based on the goals related to Economic and Occupational Competence were administered to 400 high school students who were chosen as participants using the same sampling procedure used to select student and parent respondents for subjective instruments.

Evaluation Design: The DISD Board of Education adopted the Texas Education Agency's comprehensive goals entitled Goals for Public School Education in Texas (TEA, 1976). The goals relating to the topic of Economic and Occupational Competence are as follows:

1. Students should have knowledge of the American economic system and how each person can participate and succeed in the system.

2. Students should have skills in preparing for and entering the World of Work.

3. Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.

For each goal, a series of goal indicators was developed to achieve greater specificity and facilitate the development of survey instruments.

Both subjective and objective data were utilized in the analyses of the three goals relating to Economic and Occupational Competence. Two types of analyses were conducted on the subjective data and a modified criterion referenced method was utilizied for the objective data. Initially, a need index was determined for each goal and goal indicator to serve as an indication of whether the respondents felt the District was undercommitted or overcommitted to a given goal. These need indexes were computed by ranking the way each person (parents, students, and teachers) responded to the survey items. More specifically, a person's responses were ranked as shown in Table 1. These respondent rankings were then averaged across items to obtain a need index for each goal and goal indicator. Need indexes in the 12 to 16 range indicated that the respondents felt a goal was relatively important and required more emphasis; thus suggesting that the respondents placed a relatively high need for improvement on that goal or indicator. Need indexes in the 1 to 4 range indicated a need to reduce the effort devoted to a goal or goal indicator.

Table 1

Type of Responses

Type of Response	Rank
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

The second type of analysis for the subjective data consisted of determining the mean score for importance, from four possible responses, and the mean score for emphasis, also from four possible responses. The four point Likert scale was utilized as follows:

How Important	How Much Emphasis
4 = Very Necessary	4 = Heavy Emphasis
3 = Moderately Necessary	3 = Moderate Emphasis
2 = Slightly Necessary	2 = Slight Emphasis
1 = Not Necessary	1 = No Emphasis

Objective data were analyzed in a modified criterion referenced method. The percent of students (twelfth grade) answering the number of test items per indicator was determined. Next, the percent of students who answered half or more of the items correct per goal and per goal indicator was figured and reported with the need index. Low achievement was judged as 50% or less of the students getting half the items correct.

Evaluation Results: Table 2 indicates the results of the objective test given to twelfth grade students along with the need indexes derived from the total surveys. Goal four, relating to knowledge of the economic system, had the greatest number of indicators where there was a high need index associated with a low level of achievement. In fact, the goal itself was red flagged as having a high need index along with a low level of achievement.

Goal five, relating to occupational skills necessary to enter the world of work, consistently had a high need index and a high level of achievement, not only for the goal, but for all of the goal indicators as well. Apparently, the District has been doing a successful job in the areas of occupational and career education. In spite of this finding, survey respondents still indicate a need for additional emphasis.

Goal six, relating to Consumer Education had a high need index along with a relatively high level of achievement. However, three indicators — (1) personal budget, (2) computing personal income tax, (3) distribution of tax dollar — were reported as having a high need index with a low level of achievement.

Table 2

Objective Data With Need Indexes

GOALS & GOAL INDICATORS	% Getting 1/2 or More Correct	Need Index	Reasons for the Red Flag
GOAL 4: Students should have knowledge of the American economic system and how each person can participate and succeed in the system.	53	12.6	High need; low achievement
KNOWLEDGE ABOUT:			
(1) limited resources as a basic economic problem.	38	12.7	High need; low achievement
(2) how competition makes the American economic system work.	24	12.2	High need; low achievement
(3) what income is and how it affects the American economic system.	24	13.2	High need; low achievement
(4) the forces of supply and demand and their relationship to the economic system.	60	12.2	
(5) private enterprise and private property as essential ideas of the American economic system.	26	11.5	
(6) economic instability (inflation and recession) and its impact on the economic system.	55	12.9	High need; low achievement
(7) government action in the economy (taxes and control of the money supply).	49	13.4	High need; low achievement
(8) how savings and investments are related to economic growth.	61	12.6	

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Objective Data W

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GOALS & GOAL INDICATORS	% Gettin 1/2 or M Correct
(9) how the consumer determines what products will be produced.	50
(10) specialization of labor.	19
(11) the role and function of work in the American economic system.	76
(12) the rights and responsibilities of citizenship and their relationship to national economic policy.	50
(13) consumer rights and responsibilities.	74
GOAL 5: Students should have skills in preparing for and entering the World of Work.	92
SKILLS IN:	
(14) determining various career opportunities.	79
(15) determining what to do to get a job.	66
(16) how to determine what schooling is necessary for employment in a given career.	88
(17) performing specific tasks in seeking employment (filling out job applications, setting up an interview).	70

e 2

ith Need Indexes

g ore	Need Index	Reasons for the Red Flag
	11.8	
	11.7	
	12.9	
	13.2	High need; low achievement
	13.6	
	13.4	High need index with high achievement
	14.0	
	14.2	
	14.3	
	13.7	

Tab

Objective Data

GOALS & GOAL INDICATORS	% Getti 1/2 or Correct
(18) determining the job opportunities within a given field.	77
(19) determining the factors for promotion within a given field.	67
(20) determining the relationship between increasing one's skills and job advancement.	61
(21) outlining a plan for advancement within a given field.	58
GOAL 6: Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.	62
COMPETENCIES IN:	
(22) making a personal budget.	23
(23) making a plan for personal economic growth.	60
(24) making a personal savings plan.	59
(25) determining the advantages and disadvantages of buying on credit.	50
(26) investing one's personal income.	89

le 2

With Need Indexes

ng More	Need Index	Reasons for the Red Flag
	13.5	
	12.1	
	13.1	
	12.0	High need index, low achievement
	12.9	
	13.6	High need; low achievement
	12.5	
	13.1	
	13.5	
	12.5	

Table 2

Objective Data With Need Indexes

Page 4.

GOALS & GOAL INDICATORS	% Getting 1/2 or More Correct	Need Index	Reasons for the Red Flag
(27) computing personal income tax.	38	13.2	High need; low achievement
(28) determining the purpose and types of taxes in the American economic system.	69	12.4	
(29) determining the distribution of the tax dollar, both state and federal.	50	12.4	High need; low achievement
(30) understanding the purposes of the Social Security system.	86	13.1	

Table 3 reports the same type of data tabulated by each of the five subdistricts. For goal four and goal four indicators there were generally low levels of achievement on most topics corresponding to high need indexes. However, the NE subdistrict did have high achievement on some goal indicators. Low achievement for indicator #12, Rights and Responsibilities of Citizenship, was evident in the EOC and SW subdistricts.

Generally high levels of achievement with corresponding high need indexes across all subdistricts were reported for Goal 5 which related to occupational skills. The EOC subdistrict did report low levels of achievement for the following:

1. determining what to do to get a job,

2. performing specific tasks in seeking employment,

3. determining the relationship between skills and job advancement, and

4. outlining a plan for advancement.

Goal six, relating to Consumer Education, received high need indexes along with high levels of achievement. However, several indicators were low especially those dealing with personal budgeting and taxation.

Table 3

Response by Subdistrict

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
	% of Students Getting Half or More of the Items Correct					Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
GOAL 4: Students should have knowledge of the American economic system and how each person can participate and succeed in the system.	59	86	45	20	41	12.8	12.6	12.9	12.4	12.4	Low achievement in all but NE
KNOWLEDGE ABOUT:											
(1) limited resources as a basic economic problem.	43	32	50	35	38	13.1	12.4	12.9	12.6	12.7	Low achievement in all subdistricts
(2) how competition makes the American economic system work.	21	44	17	14	14	12.3	12.0	12.6	11.9	12.2	Same as above
(3) what income is and how it affects the American economic system.	25	31	24	14	22	13.2	13.1	13.5	13.6	12.7	Same as above
(4) the forces of supply and demand and their relationship to the economic system.	64	87	45	33	53	12.6	12.3	12.7	11.2	12.0	High achievement in NE & NW
(5) private enterprise and private property as essential ideas of the American economic system.	25	47	21	3	24	11.7	12.0	11.6	11.0	10.9	Low achievement in all subdistricts
(6) economic instability (inflation and recession) and its impact on the economic system.	54	75	55	34	50	13.0	12.9	13.1	12.3	12.8	Low achievement in all but NE
(7) government action in the economy (taxes and control of the money supply).	45	65	52	30	53	13.2	13.2	13.5	13.9	13.4	Same as above

Table 3 - Response by Subdistrict

GOALS & GOAL INDICATORS	OBJECTIVE DATA % of Students Getting Half or More of the Items Correct					SUBJECTIVE DATA Need Indexes					RED FLAGS
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
(8) how savings and investments are related to economic growth.	65	81	43	44	53	13.1	12.5	13.0	12.1	12.4	
(9) how the consumer determines what products will be produced.	50	73	36	34	40	12.2	11.8	12.0	11.8	11.3	
(10) specialization of labor.	17	36	17	8	10	12.0	11.5	12.2	11.5	11.3	Low achievement in all subdistricts
(11) the role and function of work in the American economic system.	75	94	69	61	76	12.9	12.9	13.2	12.8	12.6	
(12) the rights and responsibilities of citizenship and their relationship to national economic policy.	56	64	69	22	43	13.7	12.8	13.5	12.6	13.3	Low achievement in EOC and SW
(13) consumer rights and responsibilities.	81	84	71	57	72	13.7	13.7	13.6	13.5	13.7	
GOAL 5: Students should have skills in preparing for and entering the World of Work.	92	98	93	82	93	13.3	13.3	13.7	13.3	13.3	
SKILLS IN:											
(14) determining various career opportunities.	86	87	74	63	83	13.8	14.0	14.3	13.7	13.9	
(15) determining what to do to get a job.	74	88	50	44	57	13.9	14.1	14.5	14.7	14.3	Low achievement in EOC, SE
(16) how to determine what schooling is necessary for employment in a given career.	94	90	86	78	71	14.2	14.3	14.5	14.2	14.2	

Page 3. Table 3 - Response by

GOALS & GOAL INDICATORS	OBJEC	
	% of Studen More of the	
Subdistricts→	NW	NE
(17) performing specific tasks in seeking employment (filling out job applications, setting up an interview).	72	88
(18) determining the job opportunities within a given field.	76	74
(19) determining the factors for promotion within a given field.	64	85
(20) determining the relationship between increasing one's skills and job advancement.	60	80
(21) outlining a plan for advancement within a given job.	64	84
GOAL 6: Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.	77	90
COMPETENCIES IN:		
(22) making a personal budget.	23	35
(23) making a plan for personal economic growth.	62	81
(24) making a personal savings plan.	60	70

Subdistrict

TIVE DATA			SUBJECTIVE DATA					RED FLAGS
ts Getting Half or Items Correct			Need Indexes					
SE	EOC	SW	NW	NE	SE	EOC	SW	
74	45	72	13.3	13.5	13.9	14.1	13.8	Low achievement in EOC
79	79	78	13.6	13.5	13.8	13.0	13.6	
69	57	55	12.2	12.0	12.7	11.5	12.0	
69	38	60	13.4	13.1	13.1	12.9	13.0	Low achievement in EOC
69	27	43	12.0	11.7	12.6	12.0	12.0	Low achievement in EOC and SW
62	57	81	12.8	12.9	13.0	13.0	12.9	
19	13	21	13.6	13.6	14.0	13.1	13.5	Low achievement in all subdistricts
43	40	62	12.6	12.6	12.7	12.4	12.2	Low achievement in SE and EOC
55	47	57	12.7	13.2	13.4	13.3	13.1	Low achievement in EOC

Table 3 - Response by Subdistrict

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
	% of Students Getting Half or More of the Items Correct					Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
(25) determining the advantages and disadvantages of buying on credit.	46	54	48	46	59	13.3	13.4	13.8	13.6	13.4	Low achievement in NW, SE, EOC
(26) investing one's personal income.	90	94	81	87	88	12.2	12.5	12.4	12.5	12.6	
(27) computing personal income tax.	35	46	33	34	36	13.1	13.2	12.9	12.9	13.7	Low achievement in all subdistricts
(28) determining the purpose and types of taxes in the American economic system.	71	79	57	63	64	12.4	12.4	12.2	12.5	12.5	
(29) determining the distribution of the tax dollar, both state and federal.	45	68	31	39	55	12.3	11.9	12.7	13.2	12.2	Low achievement in NW, EOC and SW
(30) understanding the purposes of the Social Security system.	87	94	83	76	88	13.2	13.0	13.0	13.7	13.0	

Table 4 contains a comprehensive amount of more specific subjective and objective data for each goal and goal indicator. The objective category contains the percent of students attaining different mastery criteria for the items. The subjective data contain mean scores as well as need indexes for the three populations — students, parents, and teachers.

A general observation of this data revealed that teachers had higher need indexes than parents; and parents had higher need indexes than students. Differences between mean ratings for importance and mean ratings for emphasis were not worthy of note.

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL AND GOAL INDICATOR

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 4: Students should have knowledge of the American economic system and how each person can participate and succeed in the system.						3.1	3.4	3.4	3.1	3.3	3.3	11.7	12.8	13.1
KNOWLEDGE ABOUT:														
(1) limited resources as a basic economic problem.	38	-	-	-	-	3.2	3.2	3.4	3.1	3.2	3.4	12.0	12.6	13.3
(2) how competition makes the American economic system work.	71	24	-	-	-	3.1	3.3	3.4	3.0	3.2	3.2	11.3	12.4	12.7
(3) what income is and how it affects the American economic system.	24	-	-	-	-	3.4	3.5	3.5	3.2	3.4	3.4	12.5	13.6	13.5
(4) the forces of supply and demand and their relationship to the economic system.	81	60	35	-	-	3.0	3.4	3.4	2.9	3.2	3.2	11.1	12.7	12.8
(5) private enterprise and private property as essential ideas of the American economic system.	76	47	26	10	-	2.8	3.2	3.2	2.8	3.2	3.1	10.2	12.3	12.9
(6) economic instability (inflation and recession) and its impact on the economic system.	84	55	21	-	-	3.3	3.5	3.5	3.2	3.4	3.3	12.1	13.2	13.2

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA FOR EACH GOAL AND GOAL INDICATOR

Page 2.

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
(7) government action in the economy (taxes and control of the money supply).	49			–	–	3.5	3.5	3.5	3.4	3.4	3.4	13.4	13.5	13.4
(8) how savings and investments are related to economic growth.	61	–	–	–	–	3.0	3.5	3.4	3.0	3.4	3.3	11.5	13.2	13.1
(9) how the consumer determines what products will be produced.	79	50	–	–	–	2.8	3.1	3.3	2.8	3.1	3.3	10.4	11.8	12.9
(10) specialization of labor.	69	19	–	–	–	3.1	3.1	3.2	2.9	3.0	3.2	10.9	11.5	12.3
(11) the role and function of work in the American economic system.	76	–	–	–	–	3.2	3.4	3.5	3.1	3.3	3.4	11.8	13.0	13.5
(12) the rights and responsibilities of citizenship and their relationship to national economic policy.	50	–	–	–	–	3.2	3.5	3.6	3.2	3.3	3.5	12.1	13.0	14.0
(13) consumer rights and responsibilities.	74	–	–	–	–	3.4	3.4	3.6	3.4	3.4	3.6	13.1	13.3	14.1

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL AND GOAL INDICATOR

Page 3.

	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Need Index		
GOALS & GOAL INDICATORS	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 5: Students should have skills in preparing for and entering the World of Work.						3.4	3.5	3.6	3.3	3.4	3.5	12.7	13.2	13.9
SKILLS IN:														
(14) determining various career opportunities.	95	79	-	-	-	3.5	3.6	3.7	3.4	3.5	3.6	13.6	13.9	14.3
(15) determining what to do to get a job.	94	66	-	-	-	3.6	3.6	3.8	3.4	3.5	3.7	13.5	14.0	14.8
(16) how to determine what schooling is necessary for employment in a given career.	99	88	-	-	-	3.6	3.7	3.7	3.5	3.6	3.6	13.9	14.3	14.6
(17) performing specific tasks in seeking employment (filling out job applications, setting up an interview).	93	70	-	-	-	3.4	3.4	3.7	3.3	3.4	3.6	12.8	13.2	14.5
(18) determining the job opportunities within a given field.	77	-	-	-	-	3.4	3.5	3.6	3.3	3.4	3.5	13.0	13.2	14.0
(19) determining the factors for promotion within a given field.	94	67	-	-	-	3.1	3.2	3.3	3.0	3.1	3.2	11.4	12.0	12.6
(20) determining the relationship between increasing one's skills and job advancement.	90	61	-	-	-	3.2	3.5	3.5	3.2	3.4	3.4	12.2	13.3	13.6

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL AND GOAL INDICATOR

Page 4.

GOALS & GOAL INDICATORS	OBJECTIVE DATA: Percent of Students Getting at Least N Items Correct: 1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	SUBJECTIVE DATA: Mean Rating for Importance: Students	Parents	Teachers	Mean Rating for Emphasis: Students	Parents	Teachers	Need Index: Students	Parents	Teachers
GOAL 5 (Cont'd.)														
(21) outlining a plan for advancement within a given job.	84	58	-	-	-	3.1	3.2	3.2	3.1	3.1	3.2	11.7	11.7	12.3
GOAL 6: Students should be able to handle their own personal economic affairs such as budgeting, keeping a checking account, buying on time, completing income tax forms.						3.3	3.4	3.4	3.2	3.3	3.4	12.3	13.0	13.3
COMPETENCIES IN:														
(22) making a personal budget.	77	23	-	-	-	3.3	3.4	3.7	3.2	3.4	3.6	12.7	13.2	14.3
(23) making a plan for personal economic growth.	60	-	-	-	-	3.1	3.3	3.4	3.0	3.2	3.3	11.6	12.5	13.1
(24) making a personal savings plan.	89	59	23	-	-	3.3	3.4	3.5	3.2	3.3	3.5	12.4	12.9	13.7
(25) determining the advantages and disadvantages of buying on credit.	50	-	-	-	-	3.2	3.6	3.6	3.1	3.5	3.6	12.0	13.9	14.2
(26) investing one's personal income.	89	-	-	-	-	3.1	3.3	3.4	3.0	3.3	3.3	11.3	13.0	13.0

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL AND GOAL INDICATOR

Page 5.

	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Need Index		
GOALS & GOAL INDICATORS	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 6: (Cont'd.)														
(27) computing personal income tax.	38	-	-	-	-	3.4	3.3	3.3	3.3	3.3	3.4	12.9	13.0	13.4
(28) determining the purpose and types of taxes in the American economic system.	69	-	-	-	-	3.2	3.3	3.2	3.1	3.2	3.2	12.2	12.6	12.4
(29) determining the distribution of the tax dollar, both state and federal.	50	-	-	-	-	3.4	3.2	3.2	3.2	3.2	3.1	12.6	12.4	12.2
(30) understanding the purposes of the Social Security system.	86	-	-	-	-	3.5	3.5	3.4	3.4	3.4	3.3	13.2	13.5	13.0

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

IE77-071-3-52

Abstract

Pilot Accreditation Program:
Organizational Efficiency

Evaluator: Thomas C. Holland

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD) along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," Tea Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August, 1976).

2. Complete a self-assessment (needs assessment) based on the adopted goals. This report focuses on assessment of the four goals relating to organizational efficiency.

3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)

4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This study was conducted to assist in the identification and prioritization of DISD needs and goals in eight goal areas: (a) intellectual discipline; (b) economic and occupational competence; (c) citizenship and political understanding; (d) physical and environmental health, ecological balance, and safety; (e) fine arts and languages; (f) personal and social relations; (g) use of leisure time; and (h) organizational efficiency. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools.

Sample: For the four goals relating to organizational efficiency, survey instruments were developed and administered to parents, teachers, building administrators and central staff administrators. Data were collected from 94 parents (from 440 surveys distributed), 396 teachers, 36 building administrators, and 53 central staff administrators.

The sampling procedure varied according to each category. Parents were sampled by randomly selecting high schools; providing each school with forty instruments; and instructing the school to give the instruments to a cross section of students to be taken home to parents. Two to four teachers from each school building were selected by the building principal based on the criteria that they were knowledgeable and involved. A random sample of 50 building administrators was selected from the ranks of principals, assistant principals, deans of instruction, and interns. Central staff administrators included all members of the Superintendent's Forum.

Evaluation Design: The DISD Board of Education adopted the Texas Education Agency's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). The goals relating to the topic of organizational efficiency are as follows:

1. The learning process should take into consideration the personal goals of every student and should be designed so that each can achieve the educational standards of the system and be encouraged to remain in school until ready for a post high school career.

2. Professional faculty members should be consulted in the decision-making processes for implementing the educational goals of the system and determining the environmental conditions in which they work.

3. The personnel program of recognition and rewards should be designed to attract and retain highly competent people.

4. The educational system should be organized and conducted so as to achieve maximum cost-benefit results from efficiencies in process and economies of scale within size limitations which will make units of the system responsive and accountable to parents and citizens.

For each goal, a series of goal indicators were developed to achieve greater specificity and facilitate the development of survey instruments.

Professional staff (teachers, building administrators, and central office administrators) received instruments measuring indicators for Goals 2, 3, and 4. Parents received instruments measuring indicators for Goals 1 and 4.

Analysis for this self assessment consisted of determining the means for each indicator and groups of indicators (goal areas). Strongly Agree answers were given a value of 4, while Agree answers had a value of 3. Disagree answers were assigned a value of 2 while Strongly Disagree received a value of 1. A mean score of less than 2.5 was interpreted as a negative reaction while a mean score in excess of 2.5 was deemed a positive reaction.

To facilitate analysis Goal 1 was divided into three topics — Appropriateness of Programs, Rentention Factor of Programs, and Preparation for World of Work. Goal 4 was divided into two topics — The Efficient Utilization of Resources, and Community Involvement. Separate goal indicators were then developed for each topic.

Evaluation Results: The very low rate of return (26%) from the parent sample made generalization based on these responses tenuous at best. Table I presents these responses by grouped indicators, by geographic area and total responses. Using the established criteria of less than 2.5 mean score as indicating a negative response, the East Oak Cliff area reported the only negative response and that occurred in one topic (2.379, Efficient Utilization of Resources). However, the Northwest area did approach that criteria on two topics — Preparation for World of Work and Efficient Utilization of Resources.

A close look at the individual goal indicators by area revealed that parents in the Northeast, Southeast, and Southwest subdistricts were generally positive about all the goal indicators. However, in the Northwest area a substantial percentage of parents responded unfavorably concerning some of the goal indicators. Those indicators to which parents responded negatively are listed below along with the percentage of parents who responded negatively in parentheses.

1. Appropriateness of programs for gifted students (44% responded negatively),
2. Preparation for World of Work for regular students (44%), special education students (50%), and low socio-economic students (50%), and
3. Efficient Utilization of Resources - administrative personnel (50%).

Additionally, a large percentage of parents in the East Oak Cliff area (see percents in parentheses) reported some negative responses to the following goal indicators:

1. Appropriateness of programs for regular students (41%) and special education students (41%),
2. Retention factors of program for regular students (50%), and special education students (42%),
3. Preparation for World of Work for special education students (42%), and
4. Efficient Utilization of Resources for local funds (42%), federal funds (42%), state funds (42%), school facilities (42%), administrative personnel (42%), and non-certified personnel (58%).

TABLE I

Organizational Efficiency –
Mean Rating for Parent Response*

Grouped Indicators	NW Area	NE Area	SE Area	EOC Area	SW Area	Total Area
Appropriateness of Programs	2.696	2.821	3.110	2.864	3.042	2.948
Retention Factors of Programs	2.728	2.795	3.431	2.818	3.024	2.989
Preparation for World of Work	2.587	2.914	3.260	3.000	3.025	2.975
Efficient Utilization of Resources	2.597	2.727	2.914	2.379	2.950	2.782
Community Involvement	2.833	2.767	3.000	2.792	3.042	2.926

***Mean ratings were based on the following Likert scale:**
Strongly Disagree = 1, Disagree = 2, Agree = 3, Strongly Agree = 4.

In summary, the parents from each geographic area of the District were essentially positive about all topics or grouped indicators. Negative responses were noted on isolated indicators from the Northwest and East Oak Cliff areas. This part of the study was hindered by the low rate of response from the parents.

Table II indicates the mean ratings for grouped indicators from the professional staff including building administrators, central office administrators, and teachers. The mean scores for all grouped indicators were in excess of the established criteria of 2.5 and therefore judged as essentially positive responses.

In order to gain more specific information each grouped indicator was examined by individual indicator. Table III lists the mean scores for the individual indicators in the category "Staff Involvement in Decision Making." Examination of the data revealed that all groups were essentially positive about the indicators (>2.5); however, it should be noted that the teacher category was lower than the other two categories on a number of items. Converted to a percentage, 41% of the teachers either disagreed or strongly disagreed on the item "have input into decision affecting budget allocations" and 53% felt they did not have input into decisions affecting scheduling and class size.

Table IV indicates the mean scores for the individual indicators in the category "District Program for Recognition and Rewards." Again it should be noted that most responses were essentially positive. The teacher category was lower in each category with fringe benefits (2.412) and promotion policy (2.46) falling below the 2.5 criteria. Converted to a percentage, 54% of the teachers were in the disagree column on the fringe benefit indicator and 47% were in the disagree column on the promotion policy indicator. In fact, the promotion policy indicator contained consistently lower scores compared to the other indicators in this category.

Table V contains the mean scores for the topic "Efficient Utilization of Resources." Indicators in this category focused on funds, facilities, and personnel. As in the case of previously mentioned topics, all scores for the indicators exceeded the 2.5 criteria; thus each was judged as being a positive aspect of the District.

The greatest degree of positive response judged across all categories related to categories relating to Community Involvement. Table VI indicates the mean scores for both indicators. Of the six possible responses, all but one exceeded the mean score of 3.0.

TABLE I

Organization Eff
Mean Rating for Professiona

Grouped Indicators	Building Administrators	C A
Staff Involvement in Decision Making	3.185	
District Program for Recognition and Rewards	3.017	
Efficient Utilization of Resources	2.974	
Community Involvement	3.181	

*Mean ratings were based on the following Likert scal
Strongly Disagree = 1, Disagree = 2, Agree = 3, Stro

II

ficiency -
al Staff Response*

Central Office Administrators	Teachers	Total Professional Staff
3.035	2.911	2.945
3.093	2.638	2.717
2.900	2.896	2.902
3.009	3.164	3.148

e:
ngly Agree = 4.

TABLE I

Organizational E

Mean Ratings for Staff Involve

Individual Indicators	Building Administrators
1. Know and understand the goals of the District	3.361
2. Are informed about District-wide problems	3.278
3. Are able to inform their immediate superior about job related problems	3.314
4. Understand the educational goals of the local campus	3.514
5. Have input into decisions affecting long range planning of the District	3.083
6. Have input into decisions affecting curriculum	3.028
7. Have input into decisions affecting materials selection and distribution	3.028
8. Have input into decisions affecting budget allocations	2.917
9. Have input into decisions affecting scheduling and class size	3.229
10. Have input into decisions affecting staff development plans and activities	3.111

*Mean ratings were based on the following Likert scale
Strongly Disagree = 1, Disagree = 2, Agree = 3, Stron

III

Efficiency -
ement in Decision Making*

Central Office Administrators	Teachers	Total
3.189	3.153	3.173
3.075	2.855	2.911
3.340	3.258	3.271
2.904	3.419	3.370
2.981	2.697	2.756
3.000	2.868	2.894
3.000	2.775	2.818
3.038	2.575	2.651
2.660	2.592	2.646
3.173	2.924	2.965

:
gly Disagree = 4.

TAB

Organization
Mean Ratings for District Prog

Individual Indicators	Building Administrators
1. The beginning salary schedule attracts competent people	3.333
2. The salary increments and morimum salary of the District attracts and retains competent people	3.306
3. The fringe benefits of the District helps to retain competent people	2.861
4. The promotion policy of the District rewards competent people	2.611
5. The transfer policy of the District is fair and impartial	2.972

*Mean ratings were based on the following Likert s
Strongly Disagree = 1, Disagree = 2, Agree = 3, St

BLE IV

nal Efficiency -
gram for Recognition and Rewards*

Central Office Administrators	Teachers	Total
3.585	2.972	3.067
3.547	2.762	2.890
2.925	2.412	2.502
2.509	2.410	2.436
2.922	2.628	2.687

cale:
rongly Agree = 4.

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

76-843 1975-76 School Dropout Indices, 1976, George H. Olson.

75-545 Incidence of Dropout During 1974-75, [illegible], Michael V. Miller, George H. Olson, 18 pages.

TABLE V

Organizational Efficiency - Mean Ratings for Efficient Utilization of Resources*

Individual Indicators	Building Administrators	Central Office Administrators	Teachers	Total
1. Local Funds	3.194	3.264	3.068	3.100
2. Federal Funds	2.972	2.736	2.906	2.891
3. State Funds	3.167	3.208	3.053	3.079
4. School Facilities	2.972	2.792	2.842	2.847
5. Administrative personnel	2.800	2.736	2.789	2.784
6. Instructional personnel	2.750	2.745	2.840	2.823
7. Non-certified personnel	2.943	2.804	2.803	2.814

TABLE VI

Organizational Efficiency - Mean Ratings for Community Involvement*

Individual Indicators	Building Administrators	Central Office Administrators	Teachers	Total
1. The local school within the District is responsive to the local community	3.194	3.113	3.221	3.207
2. The local school within the District is accountable to the local community	3.167	2.906	3.107	3.090

*Mean ratings were based on the following Likert scale:
Strongly Disagree = 1, Disagree = 2, Agree = 3, Strongly Agree = 4.

Abstract

Pilot Accreditation Program: Citizenship and Political Understanding

Evaluator: Robert P. Grobe

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as one of the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August, 1976).

2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the three goals related to citizenship and political understanding.)

3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)

4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of citizenship and political understanding. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools. Some general information related to citizenship and political understanding is presented in the report entitled Pilot Accreditation Program: Overview (Grobe, 1977).

Sample: Subjective survey instruments relating to the three goals concerning citizenship and political understanding were administered to parents, teachers, and students. Additionally, cognitive tests designed to measure student knowledge associated with the three goals were administered to eighth and twelfth grade students. A purposive sample of high schools was selected to receive the student tests and the parent and student surveys. That is, selection of schools was based on their having the appropriate number of students for a particular survey or test. School administrators were asked to administer 30 to 60 of each survey and test scheduled for their building to a representative group of students (i.e., the group should contain representative numbers of high and low achievers, different ethnic groups, different sexes, etc.). A total of 295 student surveys, 189 parent surveys, and 394 student tests were administered in and returned from high schools. Additionally, 536 student tests were administered and returned in the eighth grade. The sample of teachers was selected in the following manner: a small number of teacher surveys (2-4) for citizenship and political understanding were given to each principal with the directions that they be given to knowledgeable and involved teachers. A total of 380 teacher surveys were administered and returned.

Evaluation Design: The DISD Board of Education adopted TEA's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). The TEA goals are good in that they are comprehensive. However, in order to insure communication of their meaning to parents and staff, the goals were reworded for self-assessment purposes. These reworded goals are listed below:

CITIZENSHIP AND POLITICAL UNDERSTANDING GOALS FOR
DALLAS INDEPENDENT SCHOOL DISTRICT
(adapted from "Goals For Public School Education
in Texas," Texas Education Agency, Spring, 1976)

GOAL 7: Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.

GOAL 8: Students should know how to affect decisions made by political groups, such as by voting or through community involvement.

GOAL 9: Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.

In addition, the breadth of the topics included within each goal required some additional specificity. A series of goal indicators was used to focus each of the rather general goals. Take, for example, the TEA goal related to citizenship (see Table 1). That goal was focused by goal indicators which included specific information such as whether the students know where to register to vote and whether they know their civil rights. The development of such goal indicators was accomplished through cooperative effort of instructional and evaluation personnel. Personnel within the subject area disciplines were presented with the goals associated with their area of expertise and instructions to write the indicators for each goal in their area. Additional meetings between personnel of the Instructional Service Department and the evaluation personnel narrowed the list of indicators in each goal area to a workable number.

Table 1

Sample TEA Goal and Selected Goal Indicators

GOAL 7: Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.

SELECTED GOAL INDICATORS. The following should be included in DISD schools:

1. Information about governments which have limited freedom for citizens.
2. Information about the economic and political meanings of communism and socialism.
3. Information about the rights guaranteed by the American Constitution.
4. Information about how to register to vote.

In planning and implementing such a self-assessment, the TEA guidelines for the self-study (Office of Planning and Evaluation, 1976) were used to focus our own set of idiosyncratic procedures. It should be noted that the TEA guidelines deal with two types of data — program and student outcome. Program data are generally used in relation with the typical type of accreditation (i.e., checking against principles and standards). Comments in this study will therefore focus on the collection and use of student outcome data.

Instrumentation for the self-assessment related to citizenship and political understanding consisted of both subjective surveys and objective tests. Subjective instrumentation was developed utilizing the goal indicators agreed upon by personnel within the Instructional Services Department and Research, Evaluation and Information Systems Department. Objective tests were developed either by evaluation personnel with approval by the Instructional Services Department or vice versa.

To obtain subjective data about specific goal indicators, ratings of importance and degree of emphasis were requested. As an example of the survey format, the following was taken from the instrument for citizenship and political understanding:

Sample Items from a Subjective Survey

HOW IMPORTANT IS IT THAT DISD TEACH THESE?						HOW MUCH EMPHASIS SHOULD DISD PUT ON THESE?			
Not Necessary	Slightly Necessary	Moderately Necessary	Very Necessary			No Emphasis	Slight Emphasis	Moderate Emphasis	Heavy Emphasis
1	2	3	4	(1)	Information about governments which have limited freedom for citizens. For example, governments ruled by dictators, kings, or one political party.	1	2	3	4
1	2	3	4	(2)	Information about the economic meanings of communism and socialism. For example, the means by which goods and services are produced and owned by the community as a whole, not by individual citizens.	1	2	3	4

To obtain objective data about specific goal indicators, test items were written to assess knowledge related to most of the goal indicators. As an example, two indicators with the items used to assess the indicators are listed below:

Goal Indicator 19: Information about the rights guaranteed by the Constitution.

31. Do the police have the right to come inside your house any time they want to?

    (A) Yes
    (B) No
    (C) I don't know

32. "It is not necessary to believe in God." This statement makes some people angry.

    (A) A person on radio or TV should be allowed to make this statement.
    (B) A person on radio or TV should not be allowed to make this statement.

Goal Indicator 20: Information about a citizen's duties related to court and law enforcement.

33. In Dallas, you can be fined if you do not appear for jury duty.

(A) True
(B) False
(C) I don't know

34. If you witness a crime being committed, you are obligated as an American to

(A) make a citizen's arrest.
(B) report the crime anonymously.
(C) report the crime and identify yourself as a witness.
(D) ignore the incident, so that you don't get involved.

To get the subjective surveys and objective tests into the school, the number of students available in each building was identified. Then an appropriate number of surveys and tests was sent to each building with instructions to administer them to a representative group of students (i.e., the group should contain representative numbers of high and low achievers, different ethnic groups, different sexes, etc.). The surveys and tests were administered and returned in April, 1977.

For this needs assessment, the analysis consisted of rather simple data and analysis techniques. Basically, the analysis included the calculation of ranks, means, differences, frequencies and percentages.

Evaluation Results: Before examining the results, let us review the return rates for subjective surveys and objective tests. Approximate return rates are delineated below:

Type of Instrument	Number Sent to Schools	Number Returned	Approximate Return Rate
Subjective Survey			
Students	400	295	74%
Parents	490	189	39%
Teachers	446	380	85%
Objective Tests			
Eighth Grade	700	536	77%
Twelfth Grade	590	394	67%

As an introduction to the results, let us examine some general data relative to the citizenship and political understanding goals. Table 2 reveals that as expected the eighth grade students score lower than the twelfth grade. In general, student scores are highest for knowledge about rights and duties of citizens and politics and government in this country (Goal 7), while the scores are lowest concerning how to affect political decisions (Goal 8). However, it should be noted that the differences among the three citizenship and political understanding goals are not very great. For example, at the twelfth grade 84 percent of the students get at least half the items correct for Goal 7, while 72 percent and 80 percent attain the same criterion for Goal 8 and Goal 9, respectively. Examining the subjective data reveals that two of these goals were viewed as being moderately important among the goals. That is, Goal 7 was ranked number eight with the Q-sort and Goal 9 with a Need Index of 12.8 was ranked number 8.

Table 2

SUMMARY DATA FOR CITIZENSHIP AND POLITICAL UNDERSTANDING GOALS

GOALS FOR CITIZENSHIP & POLITICAL UNDERSTANDING	OBJECTIVE DATA							SUBJECTIVE DATA						
				Percent of Students Attaining Different Mastery Criterions:				Q-Sort Ranks						
	Grade	No. of Students	No. of Items	25% of Items Correct	50% of Items Correct	75% of Items Correct	100% of Items Correct	Over-All Rank	PTA[b] Pres.	O.I.[b] Teachers	Leader-ship Council	Exec. Team	JUCC[b]	Need Index[a]
GOAL 7: Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.	8	536	38	97%	65%	16%	0%	8	8	8	.5	8.5	4.5	12.5
	12	394	48	100%	84%	43%	1%							
GOAL 8: Students shoudd know how to affect decisions made by political groups, such as by voting or through community involvement.	8	536	5	84%	60%	36%	11%	11	10	13	13.5	11	11	12.5
	12	394	5	88%	72%	49%	18%							
GOAL 9: Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.	8	536	6	92%	79%	36%	14%	16	15.5	16	17.5	14.5	13	12.8
	12	394	7	92%	80%	49%	19%							

---

[a] A need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. Need indexes in the 12 to 16 range indicate that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high priority on the goal. Need indexes in the 1 to 4 range would indicate a need to reduce the effort devoted to a goal.

[b] Parent-Teacher Association (PTA) presidents participated in the Q-sort ranking; other participating groups included: Operation Involvement (OI) teachers; the Leadership Council; the Executive Team; and the Joint Urban Curriculum Council (JUCC).

Table 3 should serve to focus your attention on some of the more important goal indicators. As noted the goal indicators in Table 3 have been ordered such that the goal indicator with the highest need index is listed first and the other indiators are listed in descending order. Table 3 identifies with a red flag (⚑) some of the goal indicators which warrant closer scrutiny or deserve special consideration. The reader should note that the term "red flag" is used since it symbolically represents a danger signal; however,the "red flags" will not literally be red. Additionally, some reasons for the red flag are delineated. These reasons are usually summary statements which can be investigated further in Table 4 and Table 5.

A trend which can be identified in Table 3 is that goal indicators which relate to citizens' or voters' rights and duties generally receive high need indexes, while those indicators relating to other governments and history receive lower need indexes. Students score reasonably well on the objective test items with at least 70 percent of the students getting half or more of the items correct on all but 10 of the goal indicators.

Table 3

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
GOAL 7: Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.	84%	12.5	⚑	Overall high need index and moderately low percentage of students (43%) getting three-fourths of the items correct mark this goal as a candidate for increased efforts.
(20) Information about a citizen's duties related to courts and law enforcement (importance of jury duty, responsibility for reporting crime or appearing as a witness, respecting the rights of others).	96%	14.0	⚑	A good mastery level, but the high need index indicates a strong desire for more information in this area.
(23) Information about how to register to vote.	67%	13.8	⚑	A somewhat narrow goal indicator. It should be relatively easy to meet the expressed need and raise the mastery level.
(19) Information about the rights guaranteed by the Constitution.	98%	13.7	⚑	A good mastery level, but the high need index indicates a strong desire for more information in this area.
(9) Information about the branches of the United States government (executive, legislative, judicial).	86%	13.6	⚑	Same as above.
(12) Information about the citizen's role as the source of power in a democratic form of government.	NC[b]	13.4	⚑	High need index
(30) Skill to read and mark an election ballot.	68%	13.4	⚑	A somewhat narrow goal indicator. It should be relatively easy to meet the expressed need and raise the mastery level.

[a] The term "red flag" is used since it symbolically represents a warning or danger signal; however, the "red flags" will not literally be red.

[b] Data were not collected.

Table 3

Page 2.

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
(5) Information about the two-party system of government in the United States.	52%	13.3	⚑	Low mastery level; high need index.
(13) Information about the basic purposes of government at each of the three levels (federal, state, local).	77%	13.3	⚑	A good mastery level, but the high need index indicates a strong desire for more information in this area.
(18) Information about how our form of government affects the daily lives of citizens in terms of freedoms, responsibilities, and restrictions.	87%	13.3	⚑	Same as above.
(11) Information about the source of personal freedom in our democratic form of government.	79%	13.2	⚑	A good mastery level, but the high need index indicates a strong desire for more information in this area.
(10) Information about how each branch of government can alter the rulings of the other branches (president can veto legislation, Congress approves persons appointed by the president, courts review constitutionality of laws and executive acts).	83%	13.0	⚑	Same as above.
(4) Information about how control of a government by one group or party (totalitarianism) affects a citizen's freedoms.	66%	12.8		
(14) Information about the idea that the power of government comes from the citizens in our form of democracy.	76%	12.7		

Table 3

Page 3. RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
(15) Information about our system of judicial review; for example, power of courts to declare Congressional and Presidential acts unconstitutional.	77%	12.5		
(24) Information about the difference between primary elections and general elections.	87%	12.3		
(8) Information which will identify the political systems (democracy, socialism, communism) which exist in the major countries of the world.	94%	12.1		
(25) Information about the electoral college method of electing the president.	61%	12.1		
(1) Information about governments which have limited freedom for citizens; for example, governments ruled by dictators, kings, or one political party.	85%	11.9		
(2) Information about the economic meanings of communism and socialism; for example, the means by which goods and services are produced and owned by the community as a whole, not by individual citizens.	65%	11.9		
(3) Information about the political meanings of communism and socialism.	NC	11.9		

Table 3

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
(7) Information to classify political systems (democracy, socialism, communism) based upon whether the government owns the land, machinery, and businesses or whether they are owned by private citizens.	49%	11.7		
(6) Information about how a third party affects the two-party political system in our nation.	52%	11.6		
(26) Information about lobbyists and pressure groups in politics.	43%	11.6	⚑	A marginal need index; low mastery level suggests a possible need for more emphasis. Generalization is risky since this is based on one item.
(16) Information about the background, history, and reasons for the development of representative government in the United States.	90%	11.4		
(17) Information about historical events resulting in the development of the U.S. Constitution.	65%	11.1		
(22) Ability to identify important persons in government and politics.	91%	11.1		
(27) Information about the historical development of political parties in America.	91%	10.0		

Table 3

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
GOAL 8: Students should know how to affect decisions made by political groups, such as by voting or through community involvement.	72%	12.5		
(21) Information about what a citizen can do to affect decisions made at the national, state, and local levels.	86%	13.4	🚩	Fair mastery level, but high need index indicates a strong desire for more emphasis.
(36) Ability to use democratic procedures in small groups.	NC	12.3		
(29) Information about how public opinion affects political parties.	70%	12.0		
GOAL 9: Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.	80%	12.8	🚩	Overall high need index and moderately low percentage of students (49%) getting three-fourths of the items correct make this goal a candidate for remediation.
(38) Skills to know what is fact and what is opinion and to know when conclusions are unsupported by facts.	81%	13.9	🚩	A good mastery level, but the high need index indicates a strong desire for more emphasis.
(33) Skill to recognize bias in the news media (newspaper, TV, radio).	85%	13.2	🚩	Same as above.
(35) Ability to rank political candidates according to the needs of the people they are to serve.	85%	13.1	🚩	Same as above.

Table 3

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

GOALS & GOAL INDICATORS	Percent of Seniors Getting 1/2 or More Correct	Need Index	Red Flag	Reasons for the Red Flag
(34) Skill to recognize biases of political candidates.	NC	13.0		
(37) Skills to look for several viewpoints on important civic issues.	85%	12.8		
(28) Information about the effect of mass communication (TV, Radio, newspapers) in forming the political attitudes and beliefs of citizens.	NC	12.6		
(32) Ability to recognize radical political ideas in American politics.	NC	12.0		
(31) Ability to identify American political acts as "liberal" or "conservative."	51%	11.5		

Before continuing further the summary statistics used in reporting the results will be defined. The reader should consult Table 4 as these definitions are read since this discussion will use that table for illustrations.

For the objective-referenced test items relating to each goal indicator, the summary statistic used is the percent of students getting at least N items correct where N may be 1 to 5 items. As an example, look at Goal Indicator 1 in Table 4 (p. 17). Notice that Goal Indicator 1 has two items which are used to assess related student knowledge. Eighty-five percent of the students who were tested got at least one of the two items correct, while 39 percent of the students got both items correct.

Summary statistics used to report subjective data include mean ratings and need indexes. Mean ratings are reported for the "Importance" scale and for the "Emphasis" scale. Such mean ratings were based on the four-choice, Likert scales outlined below:

How important?	How much emphasis?
4 = Very Necessary	4 = Heavy Emphasis
3 = Moderately Necessary	3 = Moderate Emphasis
2 = Slightly Necessary	2 = Slight Emphasis
1 = Not Necessary	1 = No Emphasis

As an example, look at Goal Indicator 1 in Table 4. Notice that the mean importance rating for students is "3.2." This cooresponds to slightly more than a "Moderately Necessary" rating.

The first step in calculating a need index is to rank the way a person responds to the items on the survey. More specifically, a person's responses are ranked as follows:

If a person marks an item or indicator as:	Then that item receives a rank of:
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

After the pair of responses for each item is ranked, a mean rank is calculated. A need index is defined as that mean rank. Intuitively a need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. A need index in the 12 to 16 range indicates that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high need for improvement on that goal. Need indexes in the 1 to 4 range would indicate a possible need to reduce the effort devoted to a goal.

Table 4 presents rather specific and detailed information about each of the goal indicators. Both objective and subjective information are presented. Subjective data are delineated for the different groups who were surveyed (i.e., students, parents, teachers).

This table can probably be used most effectively in conjunction with Table 3. That is, the reader can focus in this table (Table 4) on those goal indicators which were identified from Table 3 as being of particular interest. For most effective use, the reader should focus only on those indicators which are of particular interest, skip the rest, and go to the discussion concerning Table 5 and the different subdistricts.

A general trend which can be noted here in Table 4 is that the order of importance and emphasis ratings and the order of need indexes for the different groups is the same for most indicators. That order is students with the lowest ratings and indexes followed by parents and then teachers. The interesting point is that this order is nearly invariant across all the indicators. In summary, teachers see the schools as not meeting their expectations in this goal area to a greater degree than parents or students.

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA FOR EACH GOAL INDICATOR

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 7: Knowledge about rights, duties, politics, & governments.						3.2	3.3	3.5	3.1	3.2	3.3	11.9	12.5	12.9
1. Governments with limited freedom.	85%	39%	--[a]	--	--	3.2	3.3	3.4	2.9	3.0	3.2	11.1	11.8	12.6
2. Communism & Socialism Economic.	65%	11%	--	--	--	3.0	3.2	3.3	2.9	3.1	3.2	11.1	11.9	12.4
3. Communism & Socialism: Political Meanings.	NC[b]					3.1	3.2	3.3	3.0	3.1	3.1	11.6	11.8	12.1
4. How Totalitarianism affects a citizen's freedom.	64%	--	--	--	--	3.3	3.5	3.5	3.2	3.3	3.3	12.5	12.9	13.1
5. Two-party system in U.S.	82%	63%	--	--	--	3.5	3.6	3.7	3.2	3.3	3.4	12.7	13.4	13.7
6. Effect of Third Party in U.S.	52%	--	--	--	--	3.0	3.2	3.2	2.9	3.0	3.1	11.1	11.7	11.9
7. Classify Political Systems	49%	----	--	--	--	3.1	3.2	3.2	2.9	3.1	3.1	11.0	12.1	12.0
8. Identify political systems in major countries.	94%	63%	--	--	--	3.2	3.2	3.4	3.0	3.1	3.2	11.8	12.0	12.5

[a] Dashes have been used to fill in the columns when fewer than 5 items were used for a goal indicator. For this case only two items were used to assess goal indicators; therefore, percentages appear in only two columns.

[b] Data were not collected.

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA FOR EACH GOAL INDICATOR

Page 2.

GOALS & GOAL INDICATORS	OBJECTIVE DATA: Percent of Students Getting at Least N Items Correct:					SUBJECTIVE DATA: Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
9. Branches of U.S. Government.	89%	39%	--	--	--	3.6	3.6	3.7	3.3	3.4	3.5	12.9	13.5	14.1
10. Checks and Balances System in U.S.	98%	83%	55%	--	--	3.4	3.5	3.7	3.1	3.3	3.4	12.2	13.0	13.7
11. Source of Personal Freedoms in U.S.	79%	--	--	--	--	3.5	3.6	3.6	3.2	3.3	3.4	12.8	13.1	13.5
12. Citizen's Role a Source of Power.	NC					3.4	3.6	3.7	3.3	3.4	3.5	12.7	13.4	14.0
13. Purposes of three levels of government.	93%	77%	58%	--	--	3.4	3.5	3.6	3.2	3.4	3.4	12.6	13.5	13.7
14. Power of Government comes from citizens.	95%	76%	43%	--	--	3.2	3.5	3.6	3.0	3.3	3.4	11.7	12.8	13.5
15. Judicial Review.	77%	43%	--	--	--	3.3	3.3	3.4	3.1	3.2	3.2	12.0	12.6	12.7
16. Background behind representative government.	90%	70%	--	--	--	3.0	3.1	3.3	2.8	3.0	3.1	10.6	11.3	12.2
17. Background behind development of Constitution.	65%	--	--	--	--	2.9	3.1	3.3	2.8	2.9	3.0	10.2	10.9	11.8
18. How government affects daily lives of citizens.	87%	--	--	--	--	3.4	3.5	3.6	3.3	3.3	3.5	12.8	13.1	13.9

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL INDICATOR

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
19. Rights guaranteed by the Constitution.	98%	53%	—	—	—	3.7	3.6	3.7	3.4	3.4	3.4	13.7	13.5	13.9
20. Citizen's duties related to courts and law enforcement.	96%	71%	—	—	--	3.6	3.6	3.7	3.4	3.5	3.6	13.5	14.0	14.3
22. Identify important political figures.	96%	91%	41%	—	—	2.9	2.9	3.1	2.9	2.9	3.0	10.8	10.6	11.6
23. How to register to vote.	67%	--	—	--	--	3.4	3.6	3.7	3.3	3.5	3.6	13.1	13.8	14.2
24. Primary & general elections.	87%	40%	—	—	--	3.1	3.3	3.4	3.0	3.2	3.2	11.7	12.5	12.7
25. Electoral College.	61%	—	—	—	--	3.2	3.2	3.3	3.1	3.1	3.2	11.8	12.2	12.3
26. Lobbyists & pressure groups.	43%	—	—	—	--	2.9	3.1	3.3	2.9	3.0	3.2	10.8	11.4	12.2
27. Historical development of political parties.	91%	58%	—	—	—	2.8	2.7	2.9	2.7	2.7	2.8	9.5	10.0	10.4
30. Read and mark an election ballot.	94%	88%	68%	52%	32%	3.3	3.5	3.7	3.2	3.4	3.6	12.4	13.4	14.1

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA FOR EACH GOAL INDICATOR

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA								
	Percent of Students Getting at Least N Items Correct:					Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 8: Know how to affect decisions made by political groups.						3.1	3.3	3.5	3.1	3.2	3.3	11.8	12.5	13.1
21. How to affect decisions at national, state and local levels.	86%	38%	—	—	—	3.4	3.5	3.7	3.3	3.4	3.4	12.8	13.4	13.8
29. How public opinion affects political parties.	90%	70%	40%	—	—	3.1	3.2	3.3	3.1	3.1	3.1	11.7	11.9	12.2
36. How to use democratic procedures in small groups.	NC					3.0	3.2	3.5	2.9	3.1	3.4	10.9	12.1	13.4
GOAL 9: Ability to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.						3.2	3.4	3.4	3.2	3.3	3.4	12.2	12.8	13.2
28. Effect of mass communication in forming political attitudes and beliefs of citizens.	NC					3.2	3.3	3.5	3.2	3.2	3.3	12.2	12.2	13.1
31. Identify American political acts as liberal or conservative.	51%	—	—	—	—	3.1	3.0	3.1	3.1	3.1	3.0	11.8	11.6	11.3

Table 4

DETAILED OBJECTIVE AND SUBJECTIVE DATA
FOR EACH GOAL INDICATOR

Page 5.

GOALS & GOAL INDICATORS	OBJECTIVE DATA: Percent of Students Getting at Least N Items Correct:					SUBJECTIVE DATA: Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	1 of Items Correct	2 of Items Correct	3 of Items Correct	4 of Items Correct	5 of Items Correct	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
32. Recognize radical political ideas in U.S. politics.	NC					3.0	3.2	3.3	3.0	3.2	3.2	11.4	12.3	12.4
33. Recognize bias in the news media.	85%	--	--	--	--	3.3	3.4	3.6	3.2	3.4	3.5	12.3	13.3	14.0
34. Recognize biases of political candidates.	NC					3.3	3.4	3.5	3.2	3.3	3.4	12.3	13.1	13.5
35. Rank political candidates according to needs of people they are to serve.	85%	52%	--	--	--	3.4	3.5	3.5	3.3	3.3	3.4	13.0	13.0	13.3
37. Skills to look for several viewpoints on important civic issues.	85%	54%	--	--	--	3.2	3.4	3.5	3.1	3.3	3.4	11.9	13.0	13.5
38. Differenciate between fact and opinion.	81%	--	--	--	--	3.4	3.6	3.7	3.3	3.5	3.6	12.9	14.0	14.5

Table 5 presents objective and subjective data for the five major subdistricts. Such data can be used to identify disparities and special needs among the different subdistricts. As noted in the table, a goal indicator is marked with a "red flag" (⚑) if there appears to be a disparity among the subdistricts in either the objective or subjective data. The disparity causing the red flag is circled for ease of location. As examples, Goal Indicator 2 is marked with a red flag because of the relatively low score for objective data in the East Oak Cliff (EOC) subdistrict, while Goal Indicator 5 is marked because of the relatively high need index in EOC. A trend that can be noted in Table 4 is that goal indicators for Goal 7 generally receive a higher need index in EOC than in the other subdistricts.

Table 5

Goal Indicator Data for the
Five Major Subdistricts

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS[a]
	% of Students Getting Half or More of the Items Correct					Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
GOAL 7: Students should know about (a) their rights and duties as a citizen, (b) politics in this country, and (c) how our government compares to other governments.						12.3	12.4	12.2	13.1	12.5	⚑
(1) Information about governments which have limited freedom for citizens; for example, governments ruled by dictators, kings, or one political party.	89%	82	83	82	84	11.5	12.2	11.8	11.6	12.3	
(2) Information about the economic meanings of communism and socialism; for example, the means by which goods and services are produced and owned by the community as a whole, not by individual citizens.	71%	73	63	46	69	12.1	11.6	11.6	12.3	11.7	⚑
(3) Information about the political meanings of communism and socialism.	NC[b]	NC	NC	NC	NC	12.0	11.8	11.9	11.8	12.0	
(4) Information about how control of a government by one group or party (totalitarianism) affects a citizen's freedoms.	72%	84	60	50	60	12.4	13.0	12.8	13.2	13.0	
(5) Information about the two-party system of government in the United States.	86%	90	81	80	71	13.0	13.3	12.9	14.3	13.3	⚑

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[a] For this table, a goal indicator is marked with a "red flag" if there appears to be a disparity among the subdistricts in either objective or subjective data, the disparity causing the red flag is circled for ease of location.

[b] Data were not collected.

Table 5
Page 2.

GOALS & GOAL INDICATORS		OBJECTIVE DATA % of Students Getting Half or More of the Items Correct					SUBJECTIVE DATA Need Indexes					RED FLAGS
	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
(6)	Information about how a third party affects the two-party political system in our nation.	58%	61	54	28	56	11.6	11.7	11.2	12.3	11.2	🚩
(7)	Information to classify political systems (democracy, socialism, communism) based upon whether the government owns the land, machinery, and businesses or whether they are owned by private citizens.	58%	53	42	33	48	11.7	11.7	11.1	12.0	11.8	
(8)	Information which will identify the political systems (democracy, socialism, communism) which exist in the major countries of the world.	95%	97	94	92	92	11.9	12.2	12.1	12.8	12.0	
(9)	Information about the branches of the United States government (executive, legislative, judicial).	91%	94	81	76	98	13.1	13.6	13.5	14.7	13.6	🚩
(10)	Information about how each branch of government can alter the rulings of the other branches (president can veto legislation, Congress approves persons appointed by the president, courts review constitutionality of laws and executive acts).	86%	89	79	74	85	12.7	13.0	12.9	14.0	12.9	🚩
(11)	Information about the source of personal freedom in our democratic form of government.	84%	82	83	62	79	13.2	13.0	12.9	14.0	13.1	
(12)	Information about the citizen's role as the source of power in a democratic form of government.	NC	NC	NC	NC	NC	13.3	13.6	12.9	13.6	13.7	

Table 5
Page 3.

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
	% of Students Getting Half or More of the Items Correct					Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
(13) Information about the basic purposes of government at each of the three levels (federal, state, local).	85%	87	69	57	81	13.3	13.1	13.1	14.0	13.2	🚩
(14) Information about the idea that the power of government comes from the citizens in our form of democracy.	85%	92	60	57	77	12.6	12.9	12.1	13.4	12.7	
(15) Information about our system of judical review; for example, power of courts to declare Congressional and Presidential acts unconstitutional.	81%	94	67	62	79	12.5	12.3	11.9	13.5	12.3	🚩
(16) Information about the background, history and reasons for the development of representative government in the United States.	93%	94	90	80	95	10.9	11.6	11.3	11.8	11.7	
(17) Information about historical events resulting in the development of the U.S. Constitution.	77%	81	56	38	61	11.0	11.3	11.1	11.0	11.0	🚩
(18) Information about how our form of government affects the daily lives of citizens in terms of freedoms, responsibilities, and restrictions.	93%	85	79	74	94	12.9	13.4	13.2	14.1	13.4	
(19) Information about the rights guaranteed by the Constitution.	99%	97	100	95	98	13.2	13.9	13.3	14.5	14.0	
(20) Information about a citizen's duties related to courts and law enforcement (importance of jury duty, responsibility for reporting crime or appearing as a witness, respecting the rights of others).	99%	98	94	89	100	13.7	14.2	13.5	14.5	14.1	

Table 5
Page 4.

GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
	% of Students Getting Half or More of the Items Correct					Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
(22) Ability to identify important persons in government and politics.	91%	100	90	78	97	11.2	10.9	11.0	11.4	11.2	
(23) Information about how to register to vote.	66%	63	60	51	56	13.6	13.6	13.4	14.6	14.0	
(24) Information about the difference between primary elections and general elections.	88%	92	88	82	85	12.0	12.1	12.4	13.3	12.5	
(25) Information about the electoral college method of electing the president.	68%	81	52	41	56	11.8	11.6	11.7	13.8	12.3	⚑
(26) Information about lobbyists and pressure groups in politics.	57%	39	42	21	42	11.6	11.5	11.0	11.8	11.8	⚑
(27) Information about the historical development of political parties in America.	97%	90	92	82	90	10.1	9.8	9.6	10.9	10.2	
(30) Skill to read and mark an election ballot.	76%	76	58	54	66	13.1	13.1	13.3	14.1	13.8	⚑
GOAL 8: Students should know how to affect decisions made by political groups, such as by voting or through community involvement.						12.3	12.6	12.1	12.9	12.8	
(21) Information about what a citizen can do to affect decisions made at the national, state, and local levels.	88%	85	88	80	87	13.3	13.6	12.7	13.3	13.7	
(29) Information about how public opinion affects political parties.	78%	79	60	49	77	11.7	12.1	11.5	12.3	12.3	⚑
(36) Ability to use democratic procedures in small groups.	NC	NC	NC	NC	NC	12.0	12.1	12.2	13.0	12.4	

Table 5
Page 5.

GOALS & GOAL INDICATORS	OBJECTIVE DATA % of Students Getting Half or More of the Items Correct					SUBJECTIVE DATA Need Indexes					RED FLAGS
Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
GOAL 9: Students should be able to determine the political views of a candidate and the advantages and disadvantages of having that candidate in office.						12.6	13.0	12.1	13.2	13.0	
(28) Information about the effect of mass communication (TV, radio, newspapers) in forming the political attitudes and beliefs of citizens.	NC	NC	NC	NC	NC	12.8	12.9	11.6	13.0	12.5	
(31) Ability to identify American political acts as "liberal" or "conservative."	49%	53	40	53	61	11.5	11.3	10.8	12.7	11.6	
(32) Ability to recognize radical political ideas in American politics.	NC	NC	NC	NC	NC	11.9	12.3	11.0	12.6	12.4	
(33) Skill to recognize bias in the news media (newspaper, TV, radio).	95%	94	71	64	89	13.1	13.4	12.7	13.5	13.6	
(34) Skill to recognize biases of political candidates.	NC	NC	NC	NC	NC	12.7	13.6	12.3	13.0	13.1	
(35) Ability to rank political candidates according to the needs of the people they are to serve.	93%	92	79	70	84	12.9	13.3	12.5	13.5	13.7	
(37) Skills to look for several viewpoints on important civic issues.	94%	95	73	70	84	12.4	13.1	12.9	13.1	12.9	
(38) Skills to know what is fact and what is opinion and to know when conclusions are unsupported by facts.	89%	90	71	62	85	13.7	14.0	13.3	14.1	14.1	

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thoams C. Holland.

ST77-119-8-12 Validation of the Secondary Literacy Testing Program in Reading and Mathematics, 1977, Robbie G. Davis.

75-562 System-wide Assessment 1974-75: Students and Educators, 1975, C. LaVor Lym, 45 pages.

IE77-071-3-4

Abstract

Pilot Accreditation Program: Physical and Environmental Health, Ecological Balance and Safety

Evaluator: Russell A. Chadbourn

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted by DISD in August, 1976.)
2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the four goals related to health and safety.)
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)
4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of health and safety. The information collected is of two types: (1) subjective data describing student, teacher and parent's feelings about the need for additional emphasis for each goal indicator, and (2) objective data measuring the student's knowledge in those areas. The results are intended to focus efforts in developing a five-year plan to improve education in the DISD schools. Some general information related to health and safety is presented in the report entitled "Pilot Accreditation Program: Overview."

Evaluation Design: The DISD Board of Education adopted TEA's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). These goals are comprehensive; however, in order to insure communication of their meaning to parents and staff, the goals were reworded for self assessment purposes. The reworded goals dealing with health and safety are listed below:

PHYSICAL AND ENVIRONMENTAL HEALTH,
ECOLOGICAL BALANCE, AND SAFETY

(adapted from "Goals for Public School Education in Texas,"
Texas Education Agency, Spring, 1976)

1. Knowledge about the requirements of personal hygiene, nutritional consumption, and physical exercise essential to the maintenance of personal health. Knowledge about the dangers to health from addiction to harmful practices or consumption of harmful materials.

2. Skill in sports and other forms of recreation which will permit life-long enjoyment of physical exercise.

3. Competence in recognizing and preventing environmental, ecological and health problems.

4. Knowledge and experiences to provide information and develop values needed to perform daily activities free from injury or other losses.

Methodology: The goal area of Physical and Environmental Health, Ecological Balance and Safety was divided into four goals: (1) Health and Hygiene, (2) Lifetime Sports, (3) Environmental Problems, and (4) Safety. With the help of Instructional Services personnel, each of these was subdivided into sets of goal indicators, i.e., smaller topics on which knowledge or interest could be assessed. These goal indicators were used to construct a subjective survey for students, teachers, and parents, and an objective test for sixth and twelfth grade students. See Table 1 for a cross reference between goals goal indicators, and items.

The twenty-five item subjective instrument was designed to elicit attitudinal information from students, teachers and parents. For each subjective item, the respondent was asked how important it was that DISD teach that topic (not important, slightly, moderately, very important) and was also asked how much emphasis DISD should put on the topic (a lot less, a little less, a little more, a lot more). A person's two responses to each item were ranked as follows:

Table 1

Physical and Environmental Health, Ecological Balance, and Safety

CROSS REFERENCE — GOAL INDICATORS WITH ITEM NUMBERS.

GOAL INDICATORS	OBJECTIVE ITEMS		SUBJECTIVE ITEMS	
	N	Item Numbers	N	Item Numbers
GOAL 10. Student should know about cleanliness, balanced meals, need for exercise, and dangers to health from harmful materials.				
1. Personal Hygiene	2	1,2	1	1
2. Nutritional Diet	4	3,4,47,48	1	2
3. Exercises for Health	0		1	3
4. Consumption of Harmful Materials	3	7,37,42	1	4
8. Child Development	3	12,13,14	1	9
9. Body Functions	5	15,16,17,18,19	1	10
GOAL 11. Students should have skill in physical activities which can be continued throughout their lives.				
5. Skill in Sporting Activities	2	8,9	2	5,7
GOAL 12. Students should be able to recognize and prevent environmental problems.				
6. Solving Environmental Problems	0		1	6
10. Plant and Animal Relationships	1	21	1	11
11. Identify Pollution Problems	4	23,24,25,26	0	
13. Control of Communicable Diseases	3	33,34,35	2	14,15
14. Characteristics of Life Forms	8	20,22,36,38, 39,40,41,43	10	16,17,18,19, 20,21,22,23, 24,25
15. Problem Solving Techniques	1	27	0	
16. Organize and Generalize from Data	4	50,51,52,53	0	
17. Mental Health	1	49	0	
18. Common Health Problems	2	5,6	0	
GOAL 13. Students should have knowledge of good personal safety practices.				
7. First Aid for Accidents	5	10,11,44,45,46	1	8
12. Identify Dangerous Weather Conditions	5	28,29,30,31,32	2	12,13

If a person marked an item or indicator as:	Then that item received a rank of:
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3.
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

After the responses for a particular item for each person are ranked, a mean rank is calculated. If there is more than one item for a goal indicator, the mean of the ranks of all items representing that goal indicator is calculated. This mean rank is called the need index. If a person has not responded to both parts of an item, that person's score for that item is not used. Hence, the possible range of the need index is 1 to 16. Intuitively, a need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. Need indexes in the 12 to 16 range indicate that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high need for improvement on that goal. Need indexes in the 1 to 4 range would indicate a need to reduce the effort devoted to a goal.

Multiple-choice questions were written from the goal indicators, forming a fifty-three item objective test to be administered to selected sixth and twelfth grade classes. There were 24 items on health and hygiene, 17 items on environmental health, 10 items on safety and 2 on lifetime sports. Analysis of the objective tests involved calculating the percentage of respondents getting zero, 25%, 50%, 75% and 100% of the items correct for both sixth and twelfth grade respondents. In addition, sixth and twelfth grade means for each goal were compared with a t-test to determine whether twelfth grade scores were significantly better than sixth grade scores.

Percent of respondents attaining 50% mastery on the objective test was compared with the corresponding subjective need index. Those goals and goal indicators most in need of attention were marked with a "red flag" to indicate high priority.

Both 50% mastery levels and subjective need indexes were also calculated within each subdistrict. Any meaningful discrepancy across subdistricts was indicated with a "red flag" and a notation describing the reason for the "red flag."

Sample: Sampling was done by randomly selecting two high schools and three elementary schools from each of the five subdistricts. Each participating elementary school was sent a packet of 70 objective tests.

Each participating secondary school was sent a box containing packets of either 40 or 70 each of objective tests, student surveys and parent surveys. The only exception was that Samuell and Adamson did not get parent survey forms because they had participated in a pilot study with the parent survey forms. Instructions were that no class should receive more than one type of form and that they should be administered in classes representing a cross-section of that school's population. In classes receiving the parent surveys, students were asked to take the form home to their parents and to bring it back to their teacher the next day. For each of the types of forms some were not distributed since most classes had fewer than 35 students and most packets contained 40 copies.

The objective tests and student surveys were given to the students by the teacher during class, and collected the same day, thus the return rate for these instruments is probably close to 100%. Since 452 out of 610 objective tests and 312 out of 430 student surveys were returned, it seems that 26% and 27% of the forms, respectively, were not distributed. Assuming distribution of parent forms would follow the same pattern, it seems likely that of the 440 parent forms sent out, only 325 were distributed. Since 125 were returned, this gives an estimated return rate of 38%. A lower bound for the actual return rate, assuming all forms were distributed, would be 125/440 or 28%.

The teacher survey forms were delivered to school principals by Input Evaluation staff at district-wide principal's section meetings. Each of the 45 secondary school principals got four copies of the teacher survey for each of the seven goal areas while each of 133 elementary school principals got two copies (actually 135 but two of the schools did not distribute their copies in time to be included). Principals were requested to give the forms to teachers who would be knowledgeable but not experts (i.e., not teachers of that subject matter field) in that goal area. Of the 446 forms sent out, 372 were completed and returned for a return rate of 83%.

Analysis: Table 2 lists the results from analysis of the 12th grade objective data. It shows, for each goal indicator, the percent of students with none correct, 25% correct, 50%, 75% and 100% correct. If 50% mastery is chosen as the criterion, the success rate is generally satisfactory with over half the subjects achieveing mastery for all but one goal indicator. One should recall, however, that the score on an objective test is to some extent a function of the difficulty of the items. An easier set of items would result in higher scores and more difficult items would result in lower scores. If the actual items are considered representative of the content area, and if the items are well-written, then the attained scores would give a realistic assessment of knowledge. Reliability on the objective test was .84.

Table 2

Physical and Environmental Health,
Ecological Balance, and Safety

OBJECTIVE DATA
12th Grade

Goal Indicators	No. of Items	% With None of Items Correct	At Least 1/4 of Items Correct	At Least 1/2 of Items Correct	At Least 3/4 of Items Correct	% With All Items Correct
1. Personal Hygiene	2	17.0	83.0	83.0	36.5	36.5
2. Nutritional Diet	4	1.8	98.2	91.2	73.2	16.8
3. Exercises for Health	0	NA[a]	NA	NA	NA	NA
4. Consumption of Harmful Materials	3	2.4	97.6	86.5	53.5	53.5
5. Skill in Sporting Activities	2	15.7	84.3	84.3	29.4	29.4
6. Solving Environmental Problems	0	NA	NA	NA	NA	NA
7. First Aid for Accidents	5	0.4	96.2	87.8	77.4	45.1
8. Child Development	3	7.1	92.9	68.6	28.1	28.1
9. Body Functions	5	7.1	79.7	56.6	29.4	9.3
10. Plant and Animal Relationships	1	41.4	58.6	58.6	58.6	58.6
11. Identify Pollution Problems	4	1.8	98.2	94.9	84.7	59.3
12. Identify Danger Weather Conditions	5	7.3	73.7	42.9	17.7	4.9
13. Control of Communicable Diseases	3	10.0	90.0	50.9	17.0	17.0
14. Characteristics of Life Forms	8	0.7	98.2	82.3	35.4	4.2
15. Problem Solving Techniques	1	35.0	65.0	65.0	65.0	65.0
16. Organize and Generalize from Data	4	14.6	85.4	60.6	33.9	9.7
17. Mental Health	1	67.9	32.1	32.1	32.1	32.1
18. Common Health Problems	2	28.5	71.5	71.5	24.8	24.8

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[a] Data were not collected

Table 3 lists the analysis results for the subjective data, i.e., the attitudinal survey. For each goal indicator, it lists the mean response as to how important the respondents feel that indicator is, and how much more emphasis should be placed on that topic in the school program. These two values are combined for each subject to get a rank, then these ranks averaged to get a mean need index. As stated before, a mean rank of 12 or more would indicate a felt need for improvement in that area whereas a mean rank of four or less would indicate a need for reduction of effort.

Table 4 views the same data from a different perspective. The percent of respondents falling in each of five rank categories is listed for each goal and for each goal indicator. For each of the four goals, more than 75% of the respondents either favored placing "a little more emphasis" or "a lot more emphasis" on that content area in the school program. Frequencies ranged from a high of 88% of the respondents desiring additional emphasis (i.e., 50.2 + 38.1) for Health/Hygiene to a low of 75% for Environmental Problems. Similarly, for each of the 13 goal indicators measured, frequencies ranged from a high of 93% for First Aid to 71% for Characteristics of Life Forms.

Table 5 summarizes both objective and subjective values for each goal and goal indicator, "red-flagging" those areas which appear to have the greatest need because of either low mastery level or high perceived need. Those topics with need indexes below 12.00 were not red-flagged since there were mixed feelings among the respondents about the relative importance and need for additional training on those topics. It is interesting, but not surprising, that every goal indicator which had a clear-cut relationship to health or safety also had a need index greater than 12.00 and was thus red-flagged.

Goal 10, Health/Hygiene, ranked highest at 12.82, with Goal 13, Safety, next at 12.62. Goal 11, Lifelong Physical Activities, ranked third with a need index of 11.47 and Goal 12, Environmental Problems last with a need index of 11.30. The low ranking of Goal 12, Environmental Problems, is misleading, however. All but two of the tested goal indicators subsumed within that goal are red-flagged at quite high need indexes (13.63 to 12.68). Two of the goal indicators, Relationship of Plants and Animal Life and Knowledge of Characteristics of Life Forms, were ranked low enough (10.75 and 10.71) to reduce the overall average for Goal 12 below the chosen red-flag level. Goal Indicator 14, Characteristics of Life Forms, was weighted heavily in the overall average because it was represented by many more items on both tests than was any other goal indicator.

Looking at results on the twelfth grade objective test (Tables 6 and 7), 75% mastery levels (i.e., 3/4 of items correct) were lowest for Knowledge of Communicable Diseases (17%), Dangerous Weather Conditions (18%) and Common Health Problems (25%), each of which also had a high need index. The 50%

Table 3

Physical and Environmental Health, Ecological Balance, and Safety

SUBJECTIVE DATA

	Goal Indicators	Mean Response-Importance[a]			Mean Response Emphasis			Mean Need Index		
		STU	PAR	TEA	STU	PAR	TEA	STU	PAR	TEA
1.	Personal Hygiene	2.94	3.40	3.60	2.92	3.12	3.27	11.04	12.23	13.28
2.	Nutritional Diet	3.28	3.47	3.62	3.17	3.31	3.32	12.47	13.14	13.46
3.	Exercises for Health	3.31	3.51	3.56	3.13	3.30	3.21	12.33	13.11	12.99
4.	Consumption of Harmful Materials	3.56	3.76	3.78	3.45	3.66	3.52	13.61	14.61	14.22
5.	Skill in Sporting Activities	2.92	3.09	3.19	2.95	2.96	3.05	11.06	11.26	11.87
6.	Solving Environmental Problems	NA[b]	NA	NA	NA	NA	NA	NA	NA	NA
7.	First Aid for Accidents	3.56	3.62	3.58	3.48	3.53	3.40	13.85	13.97	13.63
8.	Child Development	3.38	3.42	3.23	3.37	3.31	3.16	13.13	12.91	12.23
9.	Body Functions	3.25	3.34	3.25	3.09	3.21	3.08	12.04	12.65	12.08
10.	Plant and Animal Relationships	2.72	2.88	3.11	2.71	2.88	3.00	9.78	10.60	11.59
11.	Identify Pollution Problems	3.34	3.37	3.42	3.28	3.26	3.27	12.76	12.77	12.93
12.	Identify Dangerous Weather Conditions	3.20	3.22	3.13	3.16	3.21	3.06	12.17	12.41	11.80
13.	Control of Communicable Diseases	3.59	3.63	3.50	3.46	3.52	3.36	13.76	14.03	13.38
14.	Characteristics of Life Forms	2.89	3.05	2.98	2.82	2.98	2.86	10.42	11.18	10.81
15.	Problem Solving Techniques	NA	NA	NA	NA	NA	NA	NA	NA	NA
16.	Organize and Generalize from Data	NA	NA	NA	NA	NA	NA	NA	NA	NA
17.	Mental Health	3.38	3.42	3.23	3.37	3.31	3.16	13.13	12.91	12.23
18.	Common Health Problems	3.41	3.58	3.60	3.30	3.43	3.35	12.98	13.60	13.49

[a] Possible scores range from 1 (Not Important or Needs a Lot Less Emphasis) to 4 (Very Important or Needs a Lot More Emphasis).

[b] STU = Students, PAR = Parents, TEA = Teachers

Table 4

PHYSICAL AND ENVIRONMENTAL HEALTH

Subjective Data - Percent Response by Rank

Composite Variable	Rank 1,2,3 A Lot Less	Rank 4,5,6 A Little Less	Rank 7 - 10 Mixed	Rank 11,12,13 A Little More	Rank 14,15,16 A Lot More
GOAL 10 - Health	2.2	8.0	1.6	50.2	38.1
GI[a] 1. Personal Hygiene	3.8	8.7	1.8	56.5	29.2
GI 2. Nutritional Diet	1.9	5.3	1.3	54.6	36.9
GI 3. Exercise for Health	0.8	7.5	1.9	59.9	29.9
GI 4. Consumption of Harmful Materials	1.6	4.2	2.3	30.5	61.4
GI 8. Child Development	2.7	10.8	0.9	42.8	42.8
GI 9. Body Functions	2.2	11.5	1.3	57.1	27.9
GOAL 11 - Lifetime Sports	2.8	16.7	1.3	56.1	23.0
GI 5. Skill in Sporting Activities	2.8	16.7	1.3	56.1	23.0
GOAL 12 - Environmental Problems	4.6	18.3	1.4	49.1	26.6
GI 6. Solving Environmental Problems	1.8	9.8	1.5	44.7	42.2
GI 10. Plant and Animal Relationships	4.6	21.0	1.2	55.4	17.9
GI 13. Control of Communicable Diseases	0.8	5.1	1.4	41.3	51.3
GI 14. Characteristics of Life Forms	5.7	21.6	1.3	50.5	20.8
GOAL 13 - Safety	2.2	9.9	1.3	47.6	38.9
GI 7. First Aid for Accidents	0.8	3.8	1.6	42.4	51.4
GI 12. Identify Dangerous Weather	3.0	13.0	1.2	50.2	32.7

[a] GI = Goal Indicator

Table 5

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

Goal Ind. No.	GOALS & GOAL INDICATORS[a]	Percent Getting 1/2 or More Correct	Percent Getting 3/4 or More Correct	Need Index	Red Flags and Comments
	GOAL 10: Students should know about (a) need for cleanliness (b) need for balanced meals (c) need for physical exercise (d) dangers to health from harmful materials	81.6	30.8	12.82	The overall high need index coupled with the moderately low proportion at 75% mastery make this goal a candidate for increased efforts.
(4)	Relate "dangers to health" with certain addictions to harmful practices of consumption of harmful materials	86.5	53.5	14.05	⚑ A good mastery level but the high need index indicates strong desire for more emphasis in this area.
(2)	Select nutritionally wholesome foods which are required to maintain a minimally satisfactory diet.	91.2	29.4	13.04	⚑
(3)	Knowledge of basic physical exercises which help maintain a healthy body.	NA[b]	NA	12.75	⚑
(8)	Understand the development of a child from conception to adulthood.	68.6	28.1	12.68	⚑
(1)	Knowledge of methods and techniques which assure adequate personal hygiene.	83.0	36.5	12.26	⚑
(9)	Describe the functions of the basic parts of the body	56.6	29.4	12.15	⚑

[a] Goal Indicators are ordered by need index, higher number indicating greater need.

[b] Data were not available.

Table 5 (Continued)

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

Goal Ind. No.	GOALS & GOAL INDICATORS	Percent Getting 1/2 or More Correct	Percent Getting 3/4 or More Correct	Need Index	Red Flags and Comments
	GOAL 13: Students should have knowledge of good personal safety practices.	84.7	27.9	12.62	
(7)	Demonstrate first aid knowledge as related to simple accidents.	87.8	77.4	13.76	⚑ An excellent mastery level. High need index may indicate desire for more depth or practical experience (role playing).
(12)	Identify tornados, and other dangerous weather conditions and be able to explain ways to avoid the inherent dangers.	42.9	17.7	12.04	⚑ Marginal need index, but very low mastery level indicates need for more instruction in this area.
	GOAL 11: Students should have skill in lifelong physical activities.	84.3	29.4	11.47	
(5)	Demonstrate limited skills in sports and be able to select life-long sports activities which relate to the maintenance and enjoyment of physical exercise.	84.3	29.4	11.47	
	GOAL 12: Students should be able to recognize and prevent environmental problems which are harmful to the health of the population.	75.7	22.8	11.30	
(13)	Express concern with communicable diseases and be able to suggest methods of control for many of them.	50.9	17.0	13.63	⚑ High need index, very low 75% mastery level indicates greater efforts should be made in this area.

Table 5 (Continued)

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

Goal Ind. No.	GOALS & GOAL INDICATORS	Percent Getting 1/2 or More Correct	Percent Getting 3/4 or More Correct	Need Index	Red Flags and Comments
	GOAL 12 (Cont'd.)				
	Environmental problems				
(18)	Recognize symptoms of common health problems and the avenues whereby the problem(s) could be reduced or eliminated.	71.5	24.8	13.32	▶ High need index, very low 75% mastery level indicates greater efforts should be made in this area.
(6)	Arrive at an acceptable solution to a stated environmental problem when given a set of related data and an opportunity to analyze the data.	NA	NA	NA	The need index for goal indicators 6, 11, 15 and 17 was generated from the same item.
(11)	Identify problems related to pollution and suggest methods of seeking solutions for them.	94.9	84.7	12.84	High proportion at 75% mastery indicates basic knowledge is well-learned.
(15)	Identify problems, formulate hypotheses, recognize steps and form conclusions of an experiment.	65.0	65.0	NA	
(16)	Organize data in chart form and identify the generalization implied by the data.	60.6	35.2	NA	
(17)	Select an appropriate definition of mental health.	32.1	32.1	12.68	▶ A somewhat narrow goal indicator. It should be relatively easy to meet this expressed need and raise the mastery level.
(10)	Describe the relationship of plants and animal life.	58.6	58.6	10.75	
(14)	Knowledge of characteristics of life forms: (a) role of reproduction (b) importance of DNA (c) basic requirements for life (d) basic cell structure (e) basic substance in cells (f) interchange in cells (g) food chains	82.3	35.4	10.71	

mastery level (i.e., 1/2 of items correct) for the four goals was achieved by a low of 76% and high of 85% of the students, indicating a fair amount of the basic knowledge has been learned by twelfth grade. A look at the 75% mastery scores will reduce any complacency, however, since only 23% to 31% of the respondents reached this level for the four goals. In terms of the overall average (see Table 7), 81% reached the 50% mastery level and 20% reached 75% mastery level. If the test questions actually reflect basic knowledge it would be desirable to substantially increase the number achieving 75% mastery, at least for those goal indicators which have high need indexes.

Scores on a mastery test are a function of both the difficulties of the items and the knowledge of the respondents. Since there were no norms or previous scores on which to base a comparative judgement, the objective test was also administered to 831 sixth-grade students. Percent of respondents achieving 50% mastery at each of the two grade levels are listed in Table 6.

For each goal and goal indicator, the difference between the 6th grade score and the 12th grade score was calculated. This difference could be thought of as roughly the gain that might be expected over a six year period (even though the two groups are actually composed of different people). It can be seen that the largest difference ("improvement") was in Goal 12, Environmental Problems, and next greatest "improvement" was in Goal 10, Health/Hygiene. One should keep in mind that if a goal or goal indicator has a high percent at mastery level by grade 6, there is not much room for improvement. For example, Goal Indicator 11, Identifying Pollution Problems, had about 86% at the sixth grade 50% mastery level so that it would be impossible to improve more than 14.

Table 7 lists the percent of respondents attaining the 0, 25, 50, 75 and 100 percent mastery levels for sixth and twelfth grades. For the 0% (no items correct) and 25% (1/4 of items correct) mastery levels there is no substantial change across grade level since over all 53 items no one got them all wrong and about 98% got at least 1/4 of them correct. About 2% of sixth-grade students and 20% of twelfth-grade students got 3/4 or more of the items correct. The goal with least differential across grades was Lifetime Sports (Physical Activities) perhaps because only two items on the test measured this goal. The concept of lifetime sports and physical activities as recreation is examined in considerably more detail in a companion accreditation study, Use of Leisure Time, hence this topic was not treated as a major part of this study.

Since this study deals only with data collected from a sample of the total population, how likely is it that the total population also has these characteristics? Table 8 shows the results of t-tests conducted to test the significance of the difference between sixth and twelfth grade means. A value for t greater than t = 3.29 would mean the probability is less than .001 that the difference is due only to sampling error, i.e., chances are greater than 999 out of 1000 that the total sixth and twelfth grade classes differ on these variables. The obtained t-values can be seen to far exceed that point, hence we can be virtually certain that the two grades do differ on these variables. The overall mean of 32.7 out of 53 items for twelfth grade still leaves a lot of room for improvement.

Table 6

Physical and Environmental Health, Ecological Balance, and Safety

OBJECTIVE DATA

COMPARISON OF 6TH AND 12TH GRADE STUDENT RESPONSES

GOALS	Percent with 1/2 of Items Correct		Difference
	Grade 6	Grade 12	
10. Health	56.9	81.6	25.7
11. Lifetime Sports	71.6	84.3	12.7
12. Environmental Problems	47.2	75.7	28.5
13. Safety	68.2	84.7	16.5
Overall	51.0	80.8	29.8
GOAL INDICATORS			
1. Personal Hygiene	75.3	83.0	7.7
2. Nutritional Diet	80.5	91.2	10.7
3. Exercise for Health	NA	NA	-
4. Consumption of Harmful Materials	67.3	86.5	19.2
5. Skill in Sporting Activities	71.6	84.3	12.7
6. Solving Environmental Problems	NA	NA	-
7. First Aid for Accidents	73.5	87.8	14.3
8. Child Development	42.4	68.6	26.2
9. Body Functions	46.9	56.6	9.7
10. Plant and Animal Relationships	45.4	58.6	14.2
11. Identify Pollution Problems	85.9	94.9	9.2
12. Identify Dangerous Weather	28.8	42.9	14.1
13. Control of Communicable Diseases	39.0	50.9	11.9
14. Characteristics of Life Forms	60.7	82.3	21.6
15. Problem Solving Techniques	45.6	65.0	19.4
16. Organize and Generalize from Data	42.5	60.6	18.1
17. Mental Health	31.5	32.1	.6
18. Common Health Problems	65.5	71.5	6.0

Table 7

Physical and Environmental Health, Ecological Balance, and Safety

Percent Achieving Mastery Level on Objective Test

GOALS	No. of Items	% With None of Items Correct	At Least 1/4 of Items Correct	At Least 1/2 of Items Correct	At Least 3/4 of Items Correct	% With All Items Correct
6th Grade						
10. Health & Hygiene	17	0.	95.0	56.9	10.2	.1
11. Lifetime Sports	2	28.4	71.6	71.6	20.3	20.3
12. Environmental Problems	24	0.	96.8	47.2	2.4	0.
13. Safety	10	.4	93.0	68.2	9.6	.2
Overall	53	0.	98.0	51.0	1.8	0.
12th Grade						
10. Health & Hygiene	17	0.	97.8	81.6	30.8	.9
11. Lifetime Sports	2	15.7	84.3	84.3	29.4	29.4
12. Environmental Problems	24	0.	97.6	75.7	22.8	.2
13. Safety	10	.2	96.7	84.7	27.9	3.3
Overall	53	0.	98.5	80.8	20.1	0.

Table 8

TEST OF DIFFERENCE BETWEEN 6TH AND 12TH GRADE MEANS

	Items	Means Grade 6	 Grade 12	t-test
10. Health	17	8.98	10.94	12.19
11. Lifetime Sports	2	.92	1.14	5.47
12. Environmental Problems	24	11.28	14.26	14.22
13. Safety	10	5.28	6.38	10.33
Overall	53	26.45	32.72	14.92

The last portion of the analysis consisted of comparing 50% mastery level with subjective need index for each goal and goal indicator across each of the five subdistricts. The intent was to determine whether or not any subdistrict evidenced substantially greater need than the others in a particular content topic. As can be seen in Table 9, East Oak Cliff had high need index and low objective scores in the areas of Child Development, Function of Parts of the Body, Dangerous Weather Conditions, and Working With Data in Chart Form. Southeast had high need index and low scores in Child Development. Northwest had low achievement in Working With Data in Chart Form, and all except Northeast had high need and low achievement in Communicable Diseases. There was an overall lack of understanding of what was meant by mental health.

Summary: All areas which relate to clear-cut health or safety problems were ranked high in need. Priority areas include Dangerous Weather, Communicable Diseases, Common Health Problems, Consumption of Harmful Materials and First Aid.

Parents, teachers and students were generally favorable toward placing more emphasis on each of the 13 goal indicators measured on the subjective survey. Frequencies ranged from a high of 93% of the respondents being favorable toward First Aid to a low of 71% favorable toward Characteristics of Life Forms. At the same time, objective test results showed 81% reaching 50% mastery but only 20% reached 75% mastery at the twelfth grade level. These values were significantly better than the sixth grade scores where 51% reached 50% mastery and only 1% reached 75% mastery.

Across subdistricts, East Oak Cliff had high need and low achievement in Child Development, Function of Parts of Body, Dangerous Weather Conditions, and Interpreting Tabular Data. Southeast was low in Child Development and all subdistricts except Northeast had high need and low achievement in Communicable Diseases.

Table 9

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

Goal Ind. No.	GOALS & GOAL INDICATORS [a]	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
		% of Students Getting Half or More of the Items Correct					Need Indexes					
	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
	GOAL 10: Students should know about (a) need for cleanliness (b) need for balanced meals (c) need for physical exercise (d) dangers to health from harmful materials	79.2	90.9	81.7	60.5	91.6	12.8	12.6	12.7	13.6	12.8	
(4)	Relate "dangers to health" with certain addictions to harmful practices of consumption of harmful materials.	81.3	92.6	88.7	74.1	94.0	13.7	13.5	14.3	14.8	13.9	
(2)	Select nutritionally wholesome foods which are required to maintain a minimally satisfactory diet.	85.4	95.9	90.1	87.7	95.2	13.2	12.7	11.9	13.6	12.9	
(3)	Knowledge of basic physical exercises which help maintain a healthy body.	NA	NA	NA	NA	NA	12.9	12.4	12.0	13.6	12.9	
(8)	Understand the development of a child	70.8	72.7	66.2	59.3	71.1	12.4	12.3	13.4	13.4	12.9	SE and EOC value this the most, yet have lowest scores.
(1)	Knowledge of methods and techniques which assure adequate personal hygiene.	85.4	86.8	85.9	79.0	75.9	12.4	12.2	9.1	13.3	12.2	
(9)	Describe the functions of the basic parts of the body.	56.3	60.3	53.5	39.5	71.1	12.0	12.3	12.2	12.6	12.0	EOC, in particular, has high need and low achievement.

[a] Goal Indicators are ordered by need index, higher number indicates greater need.

Table 9 (Continued)

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

Goal Ind. No.	GOALS & GOAL INDICATORS	OBJECTIVE DATA % of Students Getting Half or More of the Items Correct					SUBJECTIVE DATA Need Indexes					RED FLAGS
	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
	GOAL 13: Students should have knowledge of good personal safety practices.	80.2	90.1	90.1	74.1	88.0	12.5	12.4	12.6	13.0	12.8	
(7)	Demonstrate first aid knowledge as related to simple accidents.	84.4	91.7	87.3	84.0	90.4	13.8	13.5	14.2	13.7	14.0	
(12)	Identify tornados, and other dangerous weather conditions and be able to explain ways to avoid the inherent dangers.	46.9	45.5	43.7	25.9	50.6	11.8	11.8	12.3	12.6	12.2	EOC has highest need & lowest achievement
	GOAL 11: Students should have skill in lifelong physical activities.	88.5	88.4	78.9	74.1	88.0	11.8	11.1	11.2	11.5	11.9	
(5)	Demonstrate limited skills in sports and be able to select life-long sports activities which relate to the maintenance and enjoyment of physical exercise.	88.5	88.4	78.9	74.1	88.0	11.8	11.1	11.2	11.5	11.9	
	GOAL 12: Students should be able to recognize and prevent environmental problems which are harmful to the health of the population.	68.8	82.6	80.3	66.7	78.3	11.2	10.9	11.4	12.1	11.4	
(13)	Express concern with communicable diseases and be able to suggest methods of control for many of them.	45.8	62.0	56.3	35.8	50.6	13.4	13.2	14.0	13.9	13.8	Overall high need and low achievement except for NE.

Table 9 (Continued)

PHYSICAL AND ENVIRONMENTAL HEALTH, ECOLOGICAL BALANCE, AND SAFETY

GOALS & GOAL INDICATORS		OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
		% of Students Getting Half or More of the Items Correct					Need Indexes					
	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
Goal Ind. No.	GOAL 12: (Cont'd.) Environmental problems											
(18)	Recognize symptoms of common health problems and the avenues whereby the problem(s) could be reduced or eliminated.	69.8	74.4	71.8	69.1	71.1	NA	NA	NA	NA	NA	
(6)	Arrive at an acceptable solution to a stated environmental problem when given a set of related data and an opportunity to analyze the data.	NA	NA	NA	NA	NA	12.9	12.6	13.2	13.0	12.8	
(11)	Identify problems related to pollution and suggest methods of seeking solutions for them.	94.8	96.7	87.3	98.8	95.2	12.9	12.6	13.2	13.0	12.8	
(15)	Identify problems, formulate hypotheses recognize steps and form conclusions of an experiment.	59.4	69.4	71.8	65.4	59.0	NA	NA	NA	NA	NA	
(16)	Organize data in chart form and identify the generalization implied by the data.	55.2	72.7	63.4	46.9	60.2	NA	NA	NA	NA	NA	▶EOC and NW have low achievement
(17)	Select an appropriate definition of mental health.	27.1	34.7	35.2	37.0	26.5	NA	NA	NA	NA	NA	▶Overall low achievement
(10)	Describe the relationship of plants and animal life.	55.2	64.5	54.9	51.9	63.9	10.9	10.6	9.7	10.6	11.0	
(14)	Knowledge of characteristics of life forms	79.2	85.1	90.1	76.5	80.7	10.6	10.3	10.6	11.6	10.8	

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

Abstract

Pilot Accreditation Program: Fine Arts and Language

Evaluators: Robert P. Grobe &
Sheila B. Wheeler

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as one of the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August, 1976).
2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the two goals related to fine arts and language.)
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)
4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of fine arts and language. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools. Some general information related to fine arts and language is presented in the reported entitled Pilot Accreditation Program: Overview (Grobe, 1977).

Sample: Subjective survey instruments relating to the two goals concerning fine arts and language were administered to parents, teachers, and students. A purposive sample of high schools was selected to receive the student tests and the parent and student surveys. That is, selection of schools was based on their having the appropriate number of

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students for a particular survey or test. School administrators were asked to administer 30 to 60 of each survey scheduled for their building to a representative group of students (i.e., the group should contain representative numbers of high and low achievers, different ethnic groups, different sexes, etc.). A total of 29 student surveys and 97 parent surveys were administered in and returned from high schools. The sample of teachers was selected in the following manner: a small number of teacher surveys (2-4) for citizenship and political understanding were given to each principal with the directions that they be given to knowledgeable and involved teachers. A total of 369 teacher surveys were administered and returned.

Evaluation Design: The DISD Board of Education adopted TEA's set of goals entitled Goals for Public School Education in Texas (TEA, 1976). The DISD adopted goals are good in that they are comprehensive. However, in order to insure communication of their meaning to parents and staff, the goals were rewarded for self-assessment purposes. These rewarded goals which are related to fine arts and language are listed below:

Fine Arts and Language Goals for
DISD (adopted from "Goals for
Public School Education in Texas",
Texas Education Agency, Spring,
1976)

GOAL 14: Students should have knowledge of the art, music and writings of groups different from their own group.

GOAL 15: Students should be able to communicate in a language other than English.

The latitude of the topics included within each goal required some additional specificity. A series of goal indicators was used to focus on each of the rather general goals. The development of such goal indicators was accomplished through a cooperative effort of instructional and evaluation personnel. Personnel within the subject area disciplines were presented with the goals associated with their area of expertise and instructions to write the indicators for each goal in their area. In addition, the Research and Evaluation personnel consulted the National Assessment of Educational Progress for additional goal indicators and collaborated the efforts with the Instructional Service Department to narrow the list of indicators in each goal area to a workable number for the development of the subjective instrument.

In planning and implementing such a self-assessment, the TEA guidelines for the self-study (Office of Planning and Evaluation, 1976) were used to focus our own set of idiosyncratic procedures. It should be noted that the TEA guidelines deal with two types of data - program and student outcome.

Program data are generally used in relation with the typical type of accreditation (i.e., checking against principles and standards). Comments in this study will therefore focus primarily on the collection and use of student outcome data. To obtain subjective data about specific goal indicators, ratings of importance and degree of emphasis were requested. As an example of the survey format, the following was taken from the instrument for fine arts and language:

SAMPLE ITEMS FROM A SUBJECTIVE SURVEY

HOW IMPORTANT IS IT THAT DISD TEACH THESE?					HOW MUCH EMPHASIS SHOULD DISD PUT ON THESE?			
Not Important	Slightly Important	Moderately Important	Very Important	CREATIVE MOVEMENT (DANCE) THE STUDENT WILL DEVELOP:	A Lot Less	A Little Less	A Little More	A Lot More
1	2	3	4	(1) skills in rhythm (keeping to the beat).	1	2	3	4
1	2	3	4	(2) ability to use creative movement (dance) for self-expression.	1	2	3	4

To get the subjective surveys in the schools, the number of students available in each building was identified. Then an appropriate number of surveys was sent to the school with instructions to administer them to a representative group of students (i.e., the group should contain representative numbers of high and low achievers, different ethnic groups, different sexes, etc.). The surveys were administered and returned in April, 1977.

For this needs assessment, the analysis consisted of rather simple data analysis techniques. Basically, the analysis included the calculation of ranks, means, differences, frequencies and percentages.

Evaluation Results: Before examining the results, let us review the return rates for these subjective surveys. Approximate return rates are delineated below.

Type of Survey	Number Sent to Schools	Number Returned	Approximate Return Rate
Students	430	291	68%
Parents	420	97	23%
Teachers	446	369	83%

Before continuing further the summary statistics used in reporting the results will be defined. The reader should consult Table 2 as these definitions are read, since this discussion will use that table for illustrations.

Summary statistics used to report subjective data include mean ratings and need indexes. Mean ratings are reported for the"Importance" scale and for the "Emphasis" scale. Such mean ratings were based on the four-choice, Likert scales outlined below:

How important?	How much emphasis?
4 = Very Necessary	4 = Heavy Emphasis
3 = Moderately Necessary	3 = Moderate Emphasis
2 = Slightly Necessary	2 = Slight Emphasis
1 = Not Necessary	1 = No Emphasis

As an example, look at Goal Indicator 1 in Table 2. Notice that the mean importance rating for teachers is "2.9". This corresponds to slightly less than a "Moderately Necessary" rating.

The first step in calculating a need index is to rank the way a person responds to the items on the survey. More specifically, a person's responses are ranked as follows:

If a person marks an item or indicator as:	Then that item recieves a rank of:
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

After the pair of responses for each item is ranked, a mean rank is calculated. A need index is defined as that mean rank. Intuitively a need index is an indication of whether the respondents feel the DISD is undercommitted or overcommitted to a goal. A need index in the 12 to 16 range indicates that respondents feel a goal is relatively important and requires more emphasis, thus suggesting that respondents place a relatively high need for improvement on that goal. Need indexes in the 1 to 4 range would indicate a possible need to reduce the effort devoted to a goal.

Table 1 should serve to focus your attention on some of the more important goal indicators. As noted the goal indicators in Table 1 have been ordered such that the goal indicator with the highest need index is listed first and the other indicators are listed in descending order. Table 1 identifies with a red flag (⚑) some of the goal indicators which warrant closer scrutiny or deserve special consideration. The reader should note that the term "red flag" is used since it symbolically represents a danger signal; however, the "red flags" will not literally be red. Additionally, some reasons for the red flag are delineated. These reasons are usually summary statements which can be investigated further in Table 2 and Table 3.

A trend which can be identified in Table 1 is that goal indicators which relate to literature, drama or bilingual/biculturalism generally receive high need indexes, while those indicators relating to the other arts (music, dance and arts) receive lower need indexes.

Table 2 presents rather specific and detailed information about each of the goal indicators. Subjective data are delineated for the different groups who were surveyed (i.e., students, parents, teachers).

This table can probably be used most effectively in conjunction with Table 1. That is, the reader can focus in this table (Table 2) on those goal indicators which were identified from Table 1 as being of particular interest. For most effective use, the reader should focus only on those indicators which are of particular interest, skip the rest, and go to the discussion concerning Table 3 and the different subdistricts.

A general trend which can be noted here in Table 2 is that the order of importance and emphasis ratings and the order of need indexes for the different groups is the same for most indicators. That order is students with the lowest ratings and indexes followed by parents and then teachers. The interesting point is that this order is nearly invariant across all the indicators. In summary, teachers see the schools as not meeting their expectations in this goal area to a greater degree than parents or students.

TABLE 1

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION[a]

Goals and Goal Indicators	Objective Data	Need Index	Red Flags	Reasons for the Red Flag
(23) skills to read and understand works of literature (books, poems, plays).	NC[b]	13.5	⚑	High need index
(4) ability to tell about experiences.	NC	12.9	⚑	High need index
(29) knowledge and appreciation of other cultures (biculturalism).	NC	12.7	⚑	Moderate need index
(24) ability to relate to other cultures through literature.	NC	12.7	⚑	Moderate need index
(25) knowledge of basic vocabulary in a major language other than English	NC	12.6	⚑	Moderate need index
(6) skills for acting in a play, such as expressive movement and speech.	NC	12.5	⚑	Moderate need index
(22) knowledge of a wide variety of "classic" literature (books, poems, plays) from different cultures and authors.	NC	12.4	⚑	Moderate need index
(27) ability to speak a language other than English (bilingualism).	NC	12.2	⚑	Moderate need index
(5) ability to tell stories.	NC	12.2	⚑	Moderate need index

[a] The term "red flag" is used since it symbolically represents a warning or danger signal; however, the "red flags" will not literally be red.

[b] Data were not collected.

(Table 1 cont'd)

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION

Goals and Goal Indicators	Objective Data	Need Index	Red Flags	Reasons for the Red Flag
(14) knowledge of color, line, shape, and texture as used in art.	NC	12.2	🚩	Moderate need index
(16) appreciation of art as an important part of human experience.	NC	12.2	🚩	Moderate need index
(26) skill to read a language other than English.	NC	12.1	🚩	Moderate need index
(8) knowledge of how to play or sing a piece of music.	NC	11.8		
(9) ability to recognize standard musical symbols, such as clefs, notes, dynamic markings, and key signatures.	NC	11.5		
(17) skills to produce works of art.	NC	11.4		
(15) skill to recognize and describe works of art (paintings, statues, drawings)	NC	11.4		
(21) knowledge of contributions from other cultures in art.	NC	11.3		
(20) ability to make judgments about the beauty, value, and quality of works of art.	NC	11.2		
(10) ability to recognize some of the well-known classical, folk, and popular music.	NC	11.0		

TABLE 1 (cont'd)

RED FLAGGED INDICATORS FOR CLOSER EXAMINATION

Goals and Goal Indicators	Objective Data	Need Index	Red Flags	Reasons for the Red Flag
(28) ability to write in a language other than English.	NC	11.0		
(12) knowledge of the musical resources of the community (music libraries, music stores, and concerts).	NC	10.7		
(18) ability to recognize famous artists and works.	NC	10.7		
(13) ability to describe a "musical" experience (song heard on radio, symphony performance, ballet performance, etc.).	NC	10.6		
(11) knowledge of the history of music.	NC	10.2		
(7) knowledge of sets, lighting, costumes, etc.	NC	10.1		
(19) knowledge about the history of art.	NC	10.1		
(2) ability to use creative movement (dance) for self-expression.	NC	9.8		
(1) skills in rhythm (keeping to the beat).	NC	9.7		
(3) knowledge of the range of arm, leg and total body movement used to assume various body positions.	NC	9.5		

TABLE 2

DETAILED DATA FOR EACH GOAL INDICATOR

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA								
		Mean Rating for Importance			Mean Rating for Emphasis			Mean Rating for Need Index		
		Students	Parents	Teachers	Stdnts	Prnts	Tchrs	Stdnts	Prnts	Tchrs.
Goal 14: Knowledge of the art, music and writings of groups diffrent from their own group.										
1. skills in rhythm	NC[a]	2.4	2.6	2.9	2.5	2.6	2.8	8.7	9.2	10.6
2. ability to use creative movement for self-expression	NC	2.4	2.6	2.9	2.6	2.7	2.8	8.8	9.7	10.6
3. knowledge of the range of arm, leg, and total body movement used to assume various body positions.	NC	2.4	2.5	2.8	2.5	2.7	2.8	8.6	9.4	10.2
4. ability to tell about experiences.	NC	3.1	3.2	3.6	3.1	3.2	3.5	11.9	12.3	13.9
5. ability to tell stories.	NC	2.9	3.3	3.5	2.8	3.1	3.4	10.6	12.2	13.5
6. skills for acting in a play, such as expressive movement and speech.	NC	3.2	3.2	3.2	3.2	3.2	3.2	12.4	12.3	12.6
7. knowledge of sets, lighting, costumes, etc.	NC	2.7	2.9	2.6	2.8	2.9	2.8	10.0	10.5	10.0

[a] Data were not collected.

TABLE 2 (cont'd)

DETAILED DATA FOR EACH GOAL INDICATOR

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA								
		Mean Rating for Importance			Mean Rating for Emphasis			Mean Rating for Need Index		
		Students	Parents	Teachers	Stdnts	Prnts	Tchrs	Stdnts	Prnts	Tchrs.
Goal 14: Knowledge of the art, music and writings of groups different from their own group.										
8. knowledge of how to play or sing a piece of music.	NC	3.0	3.1	3.1	3.0	3.0	3.0	11.5	11.8	11.9
9. ability to recognize standard musical symbols such as clefs, notes, dynamic markings, and key signature.	NC	3.0	3.1	3.0	3.0	3.1	3.0	11.0	12.0	11.7
10. ability to recognize some of the well-known classical, folk, and popular music.	NC	2.7	2.9	3.1	2.7	3.0	3.1	9.6	11.0	12.2
11. knowledge of the history of music.	NC	2.6	2.9	2.9	2.7	2.9	3.0	9.2	10.6	10.9
12. knowledge of musical resources of the community.	NC	2.6	3.0	3.1	2.6	3.0	3.0	9.4	11.0	11.7
13. ability to describe a "musical" experience.	NC	2.6	2.9	3.0	2.7	2.9	3.0	9.5	10.6	11.4
14. knowledge of color, line, shape, and texture as used in art.	NC	3.1	3.2	3.4	3.0	3.1	3.2	11.6	12.1	12.8
15. skill to recognize and describe works of art.	NC	2.8	3.0	3.0	2.9	3.0	3.1	10.8	11.6	11.7

TABLE 2 (cont'd)

DETAILED DATA FOR EACH GOAL INDICATOR

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA								
		Mean Rating for Importance			Mean Rating for Emphasis			Mean Rating for Need Index		
		Students	Parents	Teachers	Stdnts	Prnts	Tchrs	Stdnts	Prnts	Tchrs.
16. appreciation of art as an important part of human experience.	NC	3.0	3.2	3.4	2.9	3.1	3.3	11.1	12.0	13.1
17. skills to produce works of art.	NC	2.9	3.0	3.0	3.0	3.0	3.0	11.4	11.4	11.4
18. ability to recognize famous artists and works.	NC	2.6	3.0	2.8	2.8	3.0	3.0	9.9	11.4	11.0
19. knowledge about the history of art.	NC	2.6	2.9	2.8	2.6	2.9	2.9	9.1	10.8	10.6
20. ability to make judgment about the beauty, value, and quality of works of art.	NC	2.9	3.1	3.0	2.9	3.1	3.0	11.0	11.8	11.2
21. knowledge of contributions from other cultures in art.	NC	2.7	2.9	3.2	2.8	3.0	3.2	10.1	11.1	12.2
22. knowledge of a wide variety of "classic literature" from different cultures and authors.	NC	3.1	3.4	3.4	3.1	3.2	3.3	11.6	12.4	13.1
23. skills to read and understand works of literature.	NC	3.5	3.5	3.6	3.3	3.4	3.5	13.1	13.5	13.9
24. ability to relate to other cultures through literature.	NC	3.2	3.5	3.4	3.1	3.4	3.4	11.9	13.4	13.3

TABLE 2 (cont'd)

DETAILED DATA FOR EACH GOAL INDICATOR

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA								
		Mean Rating for Importance			Mean Rating for Emphasis			Mean Rating for Need Index		
		Students	Parents	Teachers	Stdnts	Prnts	Tchrs	Stdnts	Prnts	Tchrs.
Goal 15: Knowledge to be able to communicate in a language other than English.										
25. knowledge of basic vocabulary in a major language other than English.	NC	3.3	3.5	3.2	3.3	3.4	3.2	12.6	13.4	12.4
26. skill to read a language other than English.	NC	3.2	3.4	3.0	3.2	3.3	3.1	12.3	13.1	11.9
27. ability to speak a language other than English (bilingualism).	NC	3.2	3.4	3.1	3.2	3.4	3.2	12.2	13.2	12.0
28. ability to write in a language other than English.	NC	2.9	3.3	2.7	3.0	3.3	2.9	11.2	12.7	10.4
29. knowledge and appreciation of other cultures (biculturalism).	NC	3.1	3.4	3.5	3.1	3.3	3.4	11.8	12.7	13.5

Table 3 presents subjective data for the five major subdistricts. These data can be used to identify disparities and special needs among different subdistricts. As noted in the table, a goal indicator is marked with a "red flag" (⚑), if there appears to be a disparity among the subdistricts. The disparity causing the red flag is circled for ease of location. As an example, Goal Indicator 6 is marked because of the related high need index in EOC. A trend noted in Table 3 is that goal indicators for Goals 14 and 15 generally recieve a higher index in EOC than in the other subdistricts.

TABLE 3

GOAL INDICATOR DATA FOR THE FIVE MAJOR SUBDISTRICTS

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA					RED FLAGS[a]
		Need Indexes					
		NW	NE	SE	EOC	SW	
Goal 14: Knowledge of the art, music, and writings of groups different from their own group.							
1. skills in rhythm	NC[b]	9.3	9.0	9.3	10.9	10.3	
2. ability to use creative movement for self-expression	NC	9.5	9.0	9.1	11.4	10.6	
3. knowledge of the range of arm, leg, and total body movement used to assume various body positions.	NC	9.0	8.7	9.0	10.5	10.6	
4. ability to tell about experiences.	NC	13.0	12.8	12.5	13.3	13.0	
5. ability to tell stories.	NC	12.1	12.3	12.2	12.3	12.1	
6. skills for acting in a play, such as expressive movement and speech.	NC	11.9	12.2	12.0	13.8	12.9	⚑
7. knowledge of sets, lighting, costumes, etc.	NC	9.2	9.7	10.2	11.2	10.7	

[a] A goal indicator is marked with a "red flag," if there appears to be disparities among the subdistricts; the cause for the "red flag" is circled.

[b] Data were not collected.

TABLE 3 (cont'd)

GOAL INDICATOR DATA FOR THE FIVE MAJOR SUBDISTRICTS

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA					RED FLAGS
		Need Indexes					
		NW	NE	SE	EOC	SW	
8. knowledge of how to play or sing a piece of music.	NC	11.5	11.6	11.7	12.1	12.1	🚩
9. ability to recognize standard musical symbols, such as clefs, notes, dynamic markings, and key signatures.	NC	11.2	10.9	11.6	12.2	11.8	
10. ability to recognize some of the well-known classical, folk, and popular music.	NC	11.2	10.5	11.3	12.1	10.5	🚩
11. knowledge of the history of music.	NC	9.8	9.5	10.3	11.4	10.4	🚩
12. knowledge of the musical resources of the community.	NC	10.9	10.1	10.7	11.2	10.8	
13. ability to describe "musical" experience.	NC	10.6	10.0	10.4	11.7	10.6	
14. knowledge of color, line, shape, and texture as used in art.	NC	12.3	11.8	12.1	12.8	12.4	
15. skill to recognize and describe works of art.	NC	11.2	11.2	11.2	11.6	11.6	
16. appreciation of art as an important part of human experience.	NC	12.3	11.9	12.1	12.5	12.1	

TABLE 3 (cont'd)

GOAL INDICATOR DATA FOR THE FIVE MAJOR SUBDISTRICTS

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA					RED FLAGS
		Need Indexes					
		NW	NE	SE	EOC	SW	
17. skills to produce works of art.	NC	11.0	10.9	11.2	12.1	11.9	
18. ability to recognize famous artists and works.	NC	11.0	10.6	10.5	11.0	10.3	
19. knowledge about the history of art.	NC	10.3	10.0	9.8	11.0	9.7	⚑
20. ability to make judgments about the beauty, value, and quality of works of art.	NC	11.3	10.6	10.9	11.9	11.5	
21. knowledge of contributions from other cultures in art.	NC	11.5	11.1	10.9	11.7	11.2	
22. knowledge of a wide variety of "classic" literature from different cultures and authors.	NC	12.9	12.3	11.8	13.2	12.0	
23. skills to read and understand works of literature.	NC	13.8	13.5	13.1	14.0	13.5	⚑
24. ability to relate to other cultures through literature.	NC	12.5	12.9	12.5	13.4	12.5	⚑

TABLE 3 (cont'd)

GOAL INDICATOR DATA FOR THE FIVE MAJOR SUBDISTRICTS

GOALS AND GOAL INDICATORS	OBJECTIVE DATA	SUBJECTIVE DATA					RED FLAGS
		Need Indexes					
		NW	NE	SE	EOC	SW	
Goal 15: Knowledge to be able to communicate in a language other than English.							
25. knowledge of basic vocabulary in a major language other than English.	NC	12.3	12.3	12.4	13.6	12.8	🚩
26. skill to read a language other than English.	NC	12.0	11.9	11.6	13.3	12.4	🚩
27. ability to speak a language other than English (bilingualism).	NC	12.1	11.9	12.1	13.0	12.4	
28. ability to speak in a language other than English.	NC	11.1	10.5	10.7	11.8	11.3	
29. knowledge and appreciation of other cultures (biculturalism).	NC	13.1	12.2	12.1	13.8	12.8	🚩

Additional Information:

IE77-071-3-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

ST77-119-3-12 Validation of the Secondary Literacy Testing Program in Reading and Mathematics, 1977, Robbie G. Davis.

75-562 System-wide Assessment 1974-75: Students and Educators, 1975, C. LaVor Lym, 45 pages.

IE77-071-3-62

Abstract

Pilot Accreditation Program:
Use of Leisure Time

Evaluator: Russell A. Chadbourn

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted by DISD in August, 1976.)

2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the goal area Use of Leisure Time.)

3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)

4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of leisure time use. The information collected is of two types: (1) subjective data describing student, teacher and parent's feelings about the need for additional emphasis for each goal indicator, students' reported frequency of participation in various activities, and (2) objective data measuring the student's knowledge in those areas. The results are intended to focus efforts in developing a five-year plan to improve education in the DISD schools. Some general information related to use of leisure time is presented in the report entitled "Pilot Accreditation Program: Overview."

Evaluation Design: The DISD Board of Education adopted TEA's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). The state provided only one goal within the goal area Use of Leisure Time, i.e., Competence and Skill in Creative and Responsible Use of Leisure Time. The evaluation plan was to measure student's, parent's and teacher's feelings about the importance and desirability of additional emphasis on various leisure time activities, to determine student's reported frequency of participation in these activities, and to test student's understanding and familiarity with concepts associated with those activities.

Methodology: With the help of Instructional Services personnel, the goal area, Use of Leisure Time was subdivided into sets of goal indicators, i.e., smaller topics on which knowledge or interest could be assessed. These goal indicators were used to construct a subjective survey for students, teachers, and parents, and an objective test for twelfth grade students. See Table 1 for a cross reference between goal indicators and items.

A forty-five item subjective instrument was designed to elicit attitudinal information from teachers and parents. For each subjective item, the respondent was asked how important it was that DISD teach that topic (not important, slightly, moderately, very important) and was also asked how much emphasis DISD should put on the topic (a lot less, a little less, a little more, a lot more). A person's two responses to each item were ranked as follows:

If a person marked an item or indicator as:	Then that item received a rank of:
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

Table 1

Use of Leisure Time

CROSS REFERENCE — GOAL INDICATORS WITH ITEM NUMBERS

GOAL 16. Students should be able to make good use of leisure time.

GOAL INDICATORS	OBJECTIVE ITEMS[a]		SUBJECTIVE ITEMS	
	N	Item Numbers	N	Item Numbers
1. Rules of Lifetime Sports	8	A-1,6,8,9 B-1,5,8,9	0	
2. Terminology of Lifetime Sports	5	A-2,7 B-2,4,7	0	
3. Familiarity with Lifetime Sports	2	A-5 B-6	3	21,22,23
4. Rules of Team Sports	15	A-3,4,11,12,13, 15,16,17 B-3,10,13,14,15, 16,17	0	
5. Terminology of Team Sports	3	A-10,14,11	0	
6. Familiarity with Team Sports	1	B-12	1	26
7. Terminology of Outdoor Activities	2	A-24,25	0	
8. Familiarity with Outdoor Activities	8	A-26,43,47,49 B-24,25,26,43	2	15,16
9. Terminology of Individual Activities	2	A-23 B-41	0	
10. Familiarity with Individual Activities	4	A-41,42 B-23,46	8	9,10,11,12, 13,20,24,25
11. Rules of Non-exertive Games	6	A-18,21,22,27 B-18,22	0	
12. Terminology of Non-exertive Games	0		0	
13. Familiarity with Non-exertive Games	5	A-19,20 B-19,20,21	4	27,28,29,30
14. Terminology in Crafts	0		0	
15. Familiarity with Crafts	0		6	1,2,3,4,5,8
16. Terminology of Artistic Activities	6	A-28,33,34,48 B-27,33	0	
17. Familiarity with Artistic Activities	8	A-35,36,37 B-28, B-34,35,36,47	7	7,14,17,18, 19,34,35
18. Familiarity with Receptive Activities	16	A-29,30,31,32,37, 38,39,40 B-29,30, 31,32,37,38,39, 40,42	8	31,32,33,36, 37,38,43,44
19. Terminology of Household Activities	4	A-44,45,46 B-45	0	
20. Familiarity with Household Activities	1	B-44	6	6,39,40,41, 42,45

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[a] Because of the large number of items, the objective test was administered in two parts, Form A and Form B.

After the responses for a particular item for each person were ranked, a mean rank was calculated. If there was more than one item for a goal indicator, the mean of the ranks of all items representing that goal indicator was calculated. This mean rank is called the need index. If a person had not responded to both parts of an item, that person's score for that item was not used. Hence, the possible range of the need index was 1 to 16. Intuitively, a need index is an indication of whether the respondents felt the DISD was undercommitted or overcommitted to a goal. Need indexes in the 12 to 16 range indicate that respondents felt a goal was relatively important and required more emphasis, thus suggesting that respondents placed a relatively high need for improvement on that goal. Need indexes in the 1 to 4 range would indicate a need to reduce the effort devoted to a goal.

The subjective instrument for the students was somewhat different than the foregoing. The same forty-five activities that were included on the parent/teacher survey also appeared as the first 45 items on the student survey. The students were to first indicate how often they participated in that activity, then indicate how desirable they felt it was that the schools give instruction in that activity.

For the objective portion of the study, 96 multiple choice questions were written from the goal indicators. The 96 questions were administered as two tests of 49 and 47 questions each, so that no class had to cope with a too-long test. It was desirable to analyze the results as if a single test of 96 items had been administered, hence the test scores were ordered within each sub-district, then combined in pairs respectively. For example, the top two tests (Form A and Form B) in sub-district 1 were combined to make one set of 96 scored items, then the next pair of tests (one Form A, one Form B) were similarly placed into one record, etc. The resulting 96 item test formed by one such pairing would thus tend to be representative of what either of the two respondents would have done if they had taken the whole test. The two forms were distributed in an alternate fashion so that about the same number of each form was distributed, thus very few forms were unpaired and discarded.

Analysis of the objective tests involved calculating the percentage of respondents getting zero, 25%, 50%, 75% and 100% of the items correct. Those students getting at least 1/4 of the items correct were said to have attained the 25% mastery level, those getting at least 1/2 the items correct attained the 50% mastery level, etc. These values were calculated for each subdistrict as well as district-wide. The means, medians, standard deviations, maximums and minimums were also calculated for each subdistrict.

Percent of respondents attaining 50% mastery (1/2 or more of items correct) on the objective test was compared with the corresponding subjective need index for each goal and goal indicator. Those goals and goal indicators most in need of attention were marked with a "red flag" to indicate high priority. Both 50% mastery levels and subjective need indexes were also calculated within each subdistrict. Any meaningful discrepancy across subdistricts was indicated with a "red flag" and a notation describing the reason for the "red flag."

Sample: Sampling was done by randomly selecting two high schools from each of the five subdistricts for participation in the study. The random selection was adjusted so that no school was over-represented in this and associated accreditation studies, on the basis of the classes available at each school.

Each participating secondary school was sent a box containing packets of either 40 or 70 each of objective tests, student surveys and parent surveys. The only exception was that an additional school in the Northwest subdistrict, W. T. White, was sent 70 objective tests but no parent or student surveys for this goal area. Instructions were that no class should receive more than one type of form and that they should be administered in 12th grade classes representing a cross-section of that school's population. In classes receiving the parent surveys, students were asked to take the form home to their parents and to bring it back to their teacher the next day. For each of the types of forms some were not distributed since most classes had fewer than 35 students and most packets contained 40 copies.

The objective tests and student surveys were given to the students by the teacher during class, and collected the same day, thus the return rate for these instruments was probably close to 100%. Since 493 out of 650 objective tests and 279 out of 400 student surveys were returned, it seems that 24% and 30% of the forms, respectively, were not distributed. Assuming distribution of parent forms would follow the same pattern and using 28% as the non-distribution rate, it seems likely that of the 490 parent forms sent out, only 363 were distributed. Since 141 were returned, this gives an estimated return rate of 39%. A lower bound for the actual return rate, assuming all forms were distributed, would be 141/490 or 29%.

The teacher survey forms were delivered to school principals by Input Evaluation staff at district-wide principal's section meetings. Each of the 45 secondary school principals got four copies of the teacher survey for each of the seven goal areas while each of 133 elementary school principals got two copies (actually 135 but two of the schools did not distribute their copies in time to be included). Principals were requested to give the forms to teachers who would be knowledgeable but not experts (i.e., not teachers of that subject matter field) in that goal area. Of the 446 forms sent out, 376 were completed and returned for a return rate of 84%.

Analysis: Table 2 lists the results from analysis of the 12th grade objective data. It shows, for each goal indicator, the percent of students with none correct, 25% correct, 50%, 75% and 100% correct. If 50% mastery is chosen as the criterion, the success rate is generally satisfactory with over half the subjects achieving mastery for all but two of the 20 goal indicators. One should recall, however, that the score on an objective test is to some extent a function of the difficulty of the items. An easier set of items would result in higher scores and more difficult items would result in lower scores. If the actual items are considered representative of the content area, and if the items are well-written, then the attained scores would give a realistic assessment of knowledge. Reliability on the objective test was .91.

Table 3 lists the analysis results for the subjective data, i.e., the attitudinal survey. Goal indicators are combined into meaningful clusters, that is,

Table 2

Use of Leisure Time

OBJECTIVE DATA

Goal Indicators	No. of Items	% With None of Items Correct	At Least 1/4 of Items Correct	At Least 1/2 of Items Correct	At Least 3/4 of Items Correct	% With All Items Correct
1. Rules of Lifetime Sports	8	1.7	92.2	57.4	17.8	0.0
2. Terminology of Lifetime Sports	5	12.8	52.5	26.9	12.0	3.3
3. Familiarity with Lifetime Sports	2	14.3	76.5	76.5	24.4	24.4
4. Rules of Team Sports	15	0.4	98.8	89.7	46.3	3.7
5. Terminology of Team Sports	3	3.3	96.7	92.2	65.3	65.3
6. Familiarity with Team Sports	1	5.2	90.9	90.9	90.9	90.9
7. Terminology of Outdoor Activities	2	16.9	76.0	76.0	30.2	30.2
8. Familiarity with Outdoor Activities	8	1.2	97.5	68.2	16.9	0.4
9. Terminology of Individual Activities	2	19.8	80.2	80.2	35.5	35.5
10. Familiarity with Individual Activities	4	3.7	96.3	78.1	40.5	11.2
11. Rules of Non-exertive Games	6	2.5	90.9	72.7	17.4	3.3
12. Terminology of Non-exertive Games	0	NA[a]	NA	NA	NA	NA
13. Familiarity with Non-exertive Games	5	5.0	69.0	32.2	11.6	1.2
14. Terminology in Crafts	0	NA	NA	NA	NA	NA
15. Familiarity with Crafts	0	NA	NA	NA	NA	NA
16. Terminology of Artistic Activities	6	2.1	92.2	69.8	20.3	9.1
17. Familiarity with Artistic Activities	8	0.4	97.5	76.5	26.9	1.2
18. Familiarity with Receptive Activities	16	0.4	92.6	69.0	34.3	0.8
19. Terminology of Household Activities	4	7.4	92.6	77.3	55.4	22.3
20. Familiarity with Household Activities	1	31.2	65.7	65.7	65.7	65.7

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[a] NA = Data were not collected

Table 3

Use of Leisure Time

SUBJECTIVE DATA

Goal Ind. Nos.	Subgoals	Mean Rating for Importance[a]		Mean Rating for Emphasis[a]		Mean Need Index	
		PAR[b]	TEA[b]	PAR	TEA	PAR	TEA
1-3	Lifetime Sports	2.42	2.59	2.52	2.71	8.65	9.72
4-6	Team Sports	3.21	3.15	2.93	2.72	11.14	10.15
7-8	Outdoor Activities	1.90	2.02	1.97	2.16	5.61	6.74
9-10	Individual Activities	2.34	2.50	2.41	2.60	8.05	9.11
11-13	Non-Exertive Games	1.79	2.05	1.91	2.17	5.32	6.84
14-15	Crafts	2.66	2.95	2.70	2.90	9.65	10.93
16-17	Artistic Activities	2.86	3.03	2.87	3.07	10.60	11.71
18	Receptive Activities	2.49	2.76	2.53	2.79	8.68	10.11
19-20	Household Activities	3.26	3.33	3.24	3.31	12.54	12.96

[a] Possible scores range from 1 (Not Important or Needs a Lot Less Emphasis) to 4 (Very Important or Needs a Lot More Emphasis).

[b] PAR = Parent, TEA = Teacher

subgoals, for convenience of analysis. For example, goal indicators 1-3, Rules of Lifetime Sports, Terminology of Lifetime Sports and Familiarity with Lifetime Sports are combined into a topic called Lifetime Sports. For each of the resulting topics, Table 3 lists the mean response as to how important the respondent feels that topic is, and how much more emphasis should be placed on that topic in the school program. These two values are combined for each subject to get a rank, then these ranks averaged to get a mean need index. As stated before, a mean rank of 12 or more would indicate a felt need for improvement in that area whereas a mean rank of four or less would indicate a need for reduction of effort. As can be seen on Table 3, the only topic with a need index greater than 12 was Household Activities. Artistic Activities, favored more highly by teachers than by parents, might also be a candidate for attention.

The rankings for each of the 45 items on the parent/teacher survey were combined into the following five categories representing the desired curriculum emphasis: a lot less, a little less, mixed, a little more, and a lot more. An inspection of the frequencies across these alternatives provides more information than just the mean index. Table 4 lists the percentage breakdown into these categories for each of the 45 survey items. Table 5 lists a similar breakdown for the subgoals formed by combining like goal indicators. Combining the categories "a lot more" and " a little more" into the category "favorable", it can be seen that over half the respondents wanted less emphasis on Outdoor Activities and Non-Exertive Games. In fact, Household Activities, Artistic Activities and Crafts are the only topics for which additional emphasis was wanted by more than 2/3 of the respondents.

The student leisure-time survey had the same 45 items as the parent/teacher survey but asked different questions. Students were asked to indicate whether inclusion of each item in the school curriculum was "Very Desirable," "Moderately Desirable," "Slightly Desirable" or "Not Desirable." An inspection of Table 6 reveals that students were favorable toward most of the listed activities being least favorable toward Making Pictures by Cutting and Pasting, Archery, Hunting and Fishing and being most favorable toward Cooking, Team Sports and Photography.

Table 7 lists the results of combining goal indicators into appropriate subgoals with student responses again categorized in terms of the desirability of inclusion of that topic in the curriculum. It can be seen that Outdoor Activities and Non-Exertive Games were least favored by the students. Although student responses appear to be much more favorable than parent/teacher responses, a part or all of the difference may be that parents and teachers responded to how much emphasis there should be while students responded to whether a topic should be included at all.

Table 8 summarizes both objective and subjective values for each goal indicator, "red-flagging" those topics which appear to have the greatest need because of either low mastery level or high perceived need. The overall need index for Goal 16 (which encompasses all of the leisure time goal indicators) was 9.95, a value low enough to indicate there was little interest in additional emphasis on leisure time activities among those parents and teachers who responded to the study. About 71% of the students scored at the 50% mastery level (1/2 or more of the objective items correct), indicating a fair amount

Table 4

LEISURE TIME ACTIVITIES

Desired Curriculum Emphasis - Teachers and Parents
(Percent Responding in Each Category)

Item Number	Ranks 1-3 A Lot Less	Ranks 4-6 A Little Less	Ranks 7-10 Mixed	Ranks 11-13 A Little More	Ranks 14-16 A Lot More
1. Drawing, painting, or print-making	2.4	16.1	2.0	60.3	19.1
2. Making pictures by cutting and pasting	15.8	32.9	1.3	43.1	6.9
3. Carving or making models	6.4	25.8	1.2	57.0	9.6
4. Making pottery, ceramics or jewelry	4.3	21.9	0.8	54.1	18.9
5. Weaving, macrame, or needlework	3.5	22.3	1.4	54.1	18.6
6. Using sewing machine and pattern to make clothes	1.0	5.3	1.0	43.8	48.9
7. Photography (not counting family or party picture-taking)	5.5	14.8	0.4	57.6	21.7
8. Creating designs or plans for things like clothes, toys, etc.	2.7	9.4	0.6	49.2	38.1
9. Jogging	17.0	22.0	1.0	41.8	18.1
10. Walking or hiking	16.4	19.3	0.6	41.1	22.6
11. Bicycle riding	19.2	21.5	0.8	41.5	16.9
12. Horseback riding	30.5	28.1	0.9	33.5	7.0
13. Ice skating or roller skating	23.0	27.1	0.8	38.8	10.2
14. Dancing	13.5	24.9	0.6	44.9	16.0
15. Hunting	40.0	24.7	1.7	26.8	6.8
16. Fishing	31.9	26.7	1.5	31.1	8.8
17. Playing a piano	3.9	14.1	1.0	53.1	27.9
18. Playing a guitar	5.6	18.3	0.8	54.1	21.2

Table 4 (Continued)

LEISURE TIME ACTIVITIES

Desired Curriculum Emphasis - Teachers and Parents
(Percent Responding in Each Category)

Item Number	Ranks 1-3 A Lot Less	Ranks 4-6 A Little Less	Ranks 7-10 Mixed	Ranks 11-13 A Little More	Ranks 14-16 A Lot More
19. Playing a musical instrument (other than piano or guitar)	3.9	11.4	1.0	52.3	31.4
20. Swimming	1.8	7.5	1.0	34.7	55.0
21. Bowling	20.0	26.1	1.4	43.0	9.5
22. Tennis or other racquet sports	4.1	18.4	.4	52.0	25.2
23. Golf	15.9	24.5	1.0	43.7	14.8
24. Water or snow skiing	32.6	27.2	0.6	33.0	6.6
25. Archery	20.3	32.7	1.3	39.1	6.6
26. Team sports such as softball, etc.	9.5	25.3	3.1	36.4	25.7
27. Chess, checkers, backgammon or dominoes	21.1	27.6	1.0	40.5	9.8
28. Bridge	33.5	27.1	1.0	31.2	7.2
29. Card games other than bridge	40.7	25.5	1.3	29.0	3.5
30. Billiards or pool	44.0	27.0	1.3	24.7	2.9
31. Watching television	50.6	28.6	1.3	15.3	4.2
32. Going to the movie theater	40.0	28.4	0.8	25.1	5.7
33. Going to stage plays	6.7	12.9	1.0	48.6	30.8
34. Acting or participating in a stage play	3.6	8.2	0.8	48.1	39.2
35. Singing, either alone or in a group	2.4	10.5	0.6	51.4	35.0
36. Going to opera, concerts or other musical performances	4.4	11.3	0.6	44.2	39.5

Table 4 (Continued)

LEISURE TIME ACTIVITIES

Desired Curriculum Emphasis - Teachers and Parents
(Percent Responding in Each Category)

Item Number	Ranks 1-3 A Lot Less	Ranks 4-6 A Little Less	Ranks 7-10 Mixed	Ranks 11-13 A Little More	Ranks 14-16 A Lot More
37. Visiting museums, or art galleries	1.8	6.2	0.4	41.9	49.7
38. Reading a book or magazine	2.0	3.0	0.4	29.8	64.7
39. Work on a car or cycle	3.0	8.7	0.4	41.4	46.5
40. Woodworking such as cabinets, etc.	1.6	5.3	0.4	41.9	50.8
41. Working on lawn or garden	6.9	11.5	0.4	48.4	32.9
42. Working with animals	4.5	13.9	0.8	52.0	28.7
43. Listen to music from records or tapes	14.5	26.6	1.6	41.0	16.2
44. Listen to music from radio	31.7	33.8	0.8	23.4	10.2
45. Cooking	1.6	5.4	0.8	32.1	60.0

Table 5

LEISURE TIME ACTIVITIES

Desired Curriculum Emphasis - Teachers and Parents
(Percent Responding in Each Category)

Goal Ind. Nos.	Subgoals	Ranks 1-3 A Lot Less	Ranks 4-6 A Little Less	Ranks 7-10 Mixed	Ranks 11-13 A Little More	Ranks 14-16 A Lot More
1-3	Lifetime Sports	13.3	23.0	1.0	46.2	16.5
4-6	Team Sports	9.5	25.3	3.1	36.4	25.7
7-8	Outdoor Activities	35.9	25.7	1.6	29.0	7.8
9-10	Individual Activities	20.0	23.1	0.9	37.9	18.1
11-13	Non-Exertive Games	34.7	26.8	1.1	31.4	5.9
14-15	Crafts	5.8	21.4	1.2	53.0	18.6
16-17	Artistic Activities	5.5	14.6	.8	51.6	27.6
18	Receptive Activities	18.7	18.7	0.9	33.8	28.0
19-20	Household Activities	3.1	8.3	0.6	43.2	44.7

Table 6

LEISURE TIME ACTIVITIES

Percent Students Desiring Inclusion of Topic in Curriculum

Item Number	Not Desirable	Slightly Desirable	Moderately Desirable	Very Desirable
1. Drawing, painting, or print-making	11.6	24.0	26.2	38.2
2. Making pictures by cutting and pasting	37.3	35.4	19.0	8.2
3. Carving or making models	18.6	27.9	27.1	26.4
4. Making pottery, ceramics or jewelry	17.5	18.7	26.1	37.7
5. Weaving, macrame, or needlework	22.5	24.4	27.7	25.5
6. Using sewing machine and pattern to make clothes	20.7	10.7	26.7	41.9
7. Photography (not counting family or party picture-taking)	8.9	17.4	28.9	44.8
8. Creating designs or plans for things like clothes, toys, etc.	16.8	22.6	25.9	34.7
9. Jogging	25.3	21.9	27.9	24.9
10. Walking or hiking	25.9	20.7	23.0	30.4
11. Bicycle riding	27.4	23.0	22.2	27.4
12. Horseback riding	31.1	23.7	21.9	23.3
13. Ice skating or roller skating	26.9	20.3	28.4	24.4
14. Dancing	13.3	21.1	20.4	45.2
15. Hunting	43.6	24.2	16.1	16.1
16. Fishing	41.5	26.3	15.2	17.0
17. Playing a piano	25.2	18.9	21.1	34.8

Table 6 (Continued)

LEISURE TIME ACTIVITIES

Percent Students Desiring Inclusion of Topic in Curriculum

Item Number	Not Desirable	Slightly Desirable	Moderately Desirable	Very Desirable
18. Playing a guitar	27.9	17.8	21.9	32.3
19. Playing a musical instrument (other than piano or guitar)	26.7	16.7	18.5	38.1
20. Swimming	9.2	15.1	26.8	48.9
21. Bowling	17.6	23.4	28.6	30.4
22. Tennis or other racquet sports	13.3	18.1	26.2	42.4
23. Golf	42.4	24.9	16.0	16.7
24. Water or snow skiing	35.0	21.2	18.2	25.5
25. Archery	31.7	30.6	20.7	17.0
26. Team sports such as softball, etc.	7.1	10.0	23.4	59.5
27. Chess, checkers, backgammon or dominoes	24.9	30.9	21.9	22.3
28. Bridge	61.8	22.8	7.9	7.5
29. Card games other than bridge	33.8	26.2	24.0	16.0
30. Billiards or pool	31.8	22.5	21.3	24.3
31. Watching television	39.5	10.2	13.5	36.8
32. Going to the movie theater	35.8	17.7	20.0	26.4
33. Going to stage plays	27.1	26.7	21.4	24.8
34. Acting or participating in a stage play	27.8	19.6	18.5	34.1
35. Singing, either alone or in a group	18.7	21.0	21.7	38.6

Table 6 (Continued)

LEISURE TIME ACTIVITIES

Percent Students Desiring Inclusion of Topic in Curriculum

Item Number	Not Desirable	Slightly Desirable	Moderately Desirable	Very Desirable
36. Going to opera, concerts or other musical performances	28.0	20.7	21.8	29.5
37. Visiting museums, or art galleries	20.8	29.7	26.4	23.0
38. Reading a book or magazine	8.1	20.0	26.3	45.6
39. Work on a car or cycle	25.6	19.0	21.6	33.7
40. Woodworking such as cabinets, etc.	22.8	20.6	22.8	33.7
41. Working on lawn or garden	32.1	34.7	17.2	16.0
42. Working with animals	22.8	26.1	23.1	28.0
43. Listen to music from records or tapes	18.2	16.4	17.1	48.3
44. Listen to music from radio	23.0	13.7	14.4	48.9
45. Cooking	5.9	13.0	27.1	53.9

Table 7

LEISURE TIME ACTIVITIES

Percent Students Desiring Inclusion of Topic in Curriculum

Goal Ind. Nos.	Subgoals	Not Desirable	Slightly Desirable	Moderately Desirable	Very Desirable
1-3	Lifetime Sports	24.4	22.1	23.6	29.9
4-6	Team Sports	7.1	10.0	23.4	59.5
7-8	Outdoor Activities	42.5	25.2	15.7	16.6
9-10	Individual Activities	26.6	22.1	23.6	27.7
11-13	Non-Exertive Games	38.1	25.6	18.7	17.5
14-15	Crafts	20.7	25.5	25.4	28.4
16-17	Artistic Activities	21.2	18.9	21.6	38.3
18	Receptive Activities	25.0	19.4	20.1	35.5
19-20	Household Activities	21.7	20.7	23.1	34.6

Table 8

USE OF LEISURE TIME

Goal Ind. No.	GOALS & GOAL INDICATORS[a]	Percent Getting 1/2 or More Correct	Percent Getting 3/4 or More Correct	Need Index	Red Flags and Comments
	GOAL 16: Student should be able to make good use of leisure time.	70.7	14.1	9.95	Generally little interest in additional emphasis on leisure time activities.
(19)	Knowledge of terminology used in activities related to the household (such as cooking, gardening, fixing the car, caring for or training pets, sewing, etc.)	77.3	55.4	12.84	⚑ Highest ranked need for this goal area even though students did well on the objective test.
(20)	Familiarity with activities related to the household.	65.7	65.7	12.84	⚑
(16)	Knowledge of terminology used in artistic activities (such as painting, dancing, photography, acting, playing a musical instrument).	69.8	20.3	11.41	⚑ The need ranking is low when compared to other goal areas. If additional efforts are made in the leisure time area, the low proportion achieving 75% mastery here make this a candidate for more emphasis.
(17)	Familiarity with artistic activities.	76.5	26.9	11.41	⚑
(14)	Knowledge of terminology used in crafts, (such as pottery, model building, macrame, etc.).	NA[b]	NA	10.59	
(15)	Familiarity with crafts.	NA	NA	10.59	
(4)	Knowledge of rules in team sports (such as basketball, football, etc.).	89.7	46.3	10.41	
(5)	Knowledge of terminology used in team sports.	92.2	65.3	10.41	
(6)	Familiarity with team sports.	90.9	90.9	10.41	

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[a] Goal Indicators are ordered by need index, higher number indicating greater need.

[b] NA = Data were not collected.

Table 8 (Continued)

USE OF LEISURE TIME

Goal Ind. No.	GOALS & GOAL INDICATORS	Percent Getting 1/2 or More Correct	Percent Getting 3/4 or More Correct	Need Index	Red Flags and Comments
	GOAL 16 (Cont'd.) Leisure time use				
(18)	Familiarity with receptive types of activities (such as reading, listening to music, visiting museums, watching television).	69.0	34.3	9.73	
(1)	Knowledge of rules in life-time sports (i.e., physical competitive activities that can be enjoyed throughout life).	57.4	17.8	9.44	
(2)	Knowledge of terminology used in life-time sports.	26.9	12.0	9.44	
(3)	Familiarity with life-time sports.	76.5	24.4	8.97	
(9)	Knowledge of terminology used in individual physical activities (i.e., those generally non-competitive activities that a single individual can enjoy. For example, swimming, jogging, skiing).	80.2	35.5	8.83	
(10)	Familiarity with physical activities for the individual.	78.1	40.5	8.83	
(7)	Knowledge of terminology used in outdoor or wilderness activities (such as hunting, fishing, boating, camping, etc.).	76.0	30.2	6.44	
(8)	Familiarity with outdoor activities.	68.2	16.9	6.44	
(11)	Knowledge of rules used in non-exertive games (such as cards, chess, etc.).	72.7	17.4	6.44	
(12)	Knowledge of terminology used in non-exertive games.	NA	NA	6.44	
(13)	Familiarity with non-exertive games.	32.2	11.6	6.44	

Table 9

USE OF LEISURE TIME

	GOALS & GOAL INDICATORS[a]	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
		% of Students Getting Half or More of the Items Correct					Need Indexes					
Goal Ind. No.	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
	GOAL 16: Student should be able to make good use of leisure time	84.4	90.7	61.4	43.9	61.1	10.3	9.4	10.5	10.0	9.8	
(19)	Knowledge of terminology used in activities related to the household (such as cooking, gardening, fixing the car, caring for or training pets, sewing, etc.).	89.6	90.7	65.9	53.7	77.8	12.9	12.6	13.3	12.7	12.8	More emphasis needed in SE and SOC
(20)	Familiarity with activities related to the household.	68.8	83.7	59.1	51.2	63.9	12.9	12.6	13.3	12.7	12.8	Same as above
(16)	Knowledge of terminology used in artistic activities (such as painting, dancing, photography, acting, playing a musical instrument).	83.1	72.1	65.9	56.1	61.1	12.0	10.8	11.4	11.6	11.5	
(17)	Familiarity with artistic activities.	80.5	95.4	70.5	58.5	75.0	12.0	10.8	11.4	11.6	11.5	
(14)	Knowledge of terminology used in crafts (such as pottery, model building, macrame, etc.).	NA[b]	NA	NA	NA	NA	11.2	9.9	11.1	10.8	10.3	
(15)	Familiarity with crafts.	NA	NA	NA	NA	NA	11.2	9.9	11.1	10.8	10.3	
(4)	Knowledge of rules in team sports (such as basketball, football, etc.).	90.9	95.4	90.9	82.9	88.9	10.1	10.2	10.4	10.5	10.9	
(5)	Knowledge of terminology used in team sports.	92.2	100	90.9	87.8	91.7	10.1	10.2	10.4	10.5	10.9	

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[a] Goal Indicators are ordered by need index, higher number indicates greater need.

[b] NA = Data were not collected.

Table 9 (Continued)

USE OF LEISURE TIME

GOALS & GOAL INDICATORS		OBJECTIVE DATA % of Students Getting Half or More of the Items Correct					SUBJECTIVE DATA Need Indexes					RED FLAGS
Goal Ind. No.	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
	GOAL 16: (Cont'd.) Use of leisure time											
(6)	Familiarity with team sports.	94.8	93.0	93.2	80.5	91.7	10.1	10.2	10.4	10.5	10.9	
(18)	Familiarity with receptive types of activities (such as reading, listening to music, visiting museums, watching television).	87.0	90.7	65.9	29.3	55.6	10.2	9.3	9.9	9.8	9.5	
(1)	Knowledge of rules in life-time sports (i.e., physical competitive activities that can be enjoyed throughout life).	64.9	69.8	47.7	46.3	52.8	9.3	8.7	10.0	9.8	9.8	
(2)	Knowledge of terminology used in life-time sports.	36.4	39.5	20.5	9.8	19.4	9.3	8.7	10.0	9.8	9.8	
(3)	Familiarity with life-time sports.	85.7	90.7	68.2	56.1	69.4	8.8	8.1	9.9	9.1	9.4	
(9)	Knowledge of terminology used in individual physical activities (i,e., those generally non-competitive activities that a single individual can enjoy, For example, swimming, jogging, skiing).	69.6	79.1	84.1	70.7	69.4	9.0	8.1	9.4	9.1	8.9	
(10)	Familiarity with physical activities for the individual.	87.0	88.4	75.0	58.5	75.0	9.0	8.1	9.4	9.1	8.9	
(7)	Knowledge of terminology used in outdoor or wilderness activities (such as hunting, fishing, boating, camping, etc.).	83.1	79.1	77.3	58.5	77.8	6.4	6.2	7.9	5.8	6.1	

Table 9 (Continued)

USE OF LEISURE TIME

	GOALS & GOAL INDICATORS	OBJECTIVE DATA					SUBJECTIVE DATA					RED FLAGS
		% of Students Getting Half or More of the Items Correct					Need Indexes					
Goal Ind. No.	Subdistricts→	NW	NE	SE	EOC	SW	NW	NE	SE	EOC	SW	
	GOAL 16: (Cont'd.) Use of leisure time											
(8)	Familiarity with outdoor activities.	70.1	86.1	72.9	48.8	61.1	6.4	6.2	7.9	5.8	6.1	
(11)	Knowledge of rules used in non-exertive games (such as cards, chess, etc.).	77.9	86.1	68.2	51.2	77.8	6.9	5.7	7.9	6.5	5.6	
(12)	Knowledge of terminology used in non-exertive games.	NA	NA	NA	NA	NA	6.9	5.7	7.9	6.5	5.6	
(13)	Familiarity with non-exertive games.	44.1	58.1	27.3	0.0	19.4	6.9	5.7	7.9	6.5	5.6	▶ EOC has highest need and zero at mastery level

of basic knowledge has been learned by the twelfth grade. Only 14% achieved the 75% mastery level, probably because the test items covered such a wide range of specific activities.

The goal indicators relating to Household Activities in Table 8 are red-flagged because they have the highest need index for the goal area. Parents and teachers apparently want more emphasis on Household Activities even though the objective scores are already quite good with over 55% of the respondents scoring at the 75% mastery level.

The goal indicators relating to Artistic Activities in Table 8 are red-flagged even though the need index is less than the arbitrary criterion level of 12. If additional efforts were going to be made in the leisure time area, they should be made in Household Activities and Artistic Activities, both of which have need indexes considerably greater than their nearest competitors.

The other topics listed in Table 8 are not red-flagged because of low need indexes. Of these, Lifetime Sports had low enough mastery scores that it might also deserve some attention.

Table 9 compares the 50% mastery level with subjective need index for each goal indicator across each of the five subdistricts. The intent was to determine whether or not any subdistrict evidenced substantially greater need than the others for a particular topic. On the goal indicators relating to Household Activities, Southeast and East Oak Cliff had lower mastery levels than the other subdistricts, hence these goal indicators are red-flagged. Also goal indicator 13, Non-Exertive Games, was red-flagged for East Oak Cliff because 0% of the students achieved the 50% masterv level. Knowledge of Non-Exertive Games was so low in that subdistrict that it might outweigh the low perceived need of 6.5.

Subdistricts can also be compared by looking at their mean score on the objective test. Table 10 lists the means, medians, standard deviation estimates, maximum and minimum scores for each subdistrict. East Oak Cliff had the lowest mean with Southwest next to the lowest and Southeast third from the lowest.

Table 10

	Subdistrict	N	Mean	Median	SD	Maximum	Minimum
1.	Northwest	77	60.96	61.8	11.76	82	32
2.	Northeast	43	63.39	64.0	10.23	82	36
3.	Southeast & Seago.	44	52.09	51.5	13.26	77	25
4.	East Oak Cliff	41	44.17	44.0	11.36	64	17
5.	Southwest	36	51.22	52.0	13.03	75	21
	District-wide	241	55.46	56.6	13.69	82	17

The student survey asked for different answers than did the parent/teacher survey. First, as already discussed and shown in Table 6, students were asked how desirable it was to include a topic in the curriculum rather than how much emphasis the topic should receive. Second, students were asked how frequently they participated in each of the activities. The rationale for this was that frequency of participation may better reflect the importance of an activity than the individuals reported perceived importance. Table 11 lists, by specific activity, student frequency of participation. The most frequent activity by a wide margin is listening to music. Next most frequent were watching television, cooking, reading, walking or jogging and dancing. Least frequent were golf and bridge.

Table 12 shows frequency of participation when activities are grouped into sub-goals. Most frequency participation was in Receptive Activities followed by Team Sports. Least frequent participation was in Outdoor Activities.

During the design portion of the study, it was felt that Receptive Activity would rank high in terms of frequency of participation. Hence, the student survey contained some additional questions regarding preference in type of source for reading and listening to music. Students were asked to indicate which one type of fiction and one type of non-fiction they preferred. Table 13 gives the results, showing mystery and romance are the preferred fiction choices and biography and sports are the preferred non-fiction choices.

Table 14 looks at the frequency with which various sources are read. The daily newspaper is by far the most frequently read source, followed by news magazines.

Students were also asked to rank five types of music from most preferred to least preferred. Table 15 shows that Rock and Soul were far in front in popularity, followed by Pop, then Classical, with Country-Western least preferred.

Summary

In general, there is little interest in adding substantially to the DISD program in Leisure Time Activities. The main exception were that Household Activities ranked high in perceived need and Artistic Activities ranked average in perceived need and low in achievement.

Students scored lowest in achievement in Non-Exertive Games, Lifetime Sports, Outdoor Activities and Artistic Activities. These all had low need indexes except Artistic Activities. Students scored very high in achievement in Team Sports and moderately high in Household Activities.

Across subdistricts, Southeast and East Oak Cliff had high need in Household Activities, and low achievement in Household Activities and Non-Exertive Games.

Students participated by far the most frequently in Receptive Activities (TV, music, books) followed by Team Sports. They participated least frequently in Outdoor Activities, Lifetime Sports and Crafts.

Table 11

USE OF LEISURE TIME

Frequency of Student Participation
(Percent Responding, n = 279)

Item No.	Subgoal	Almost Every Day	Once A Week	1-3 Times A Month	1-8 Times A Year	Less Than Once a Year
1.	Drawing, painting, or print-making	12.1	15.0	19.0	19.0	34.8
2.	Making pictures by cutting and pasting	3.0	5.2	7.7	25.5	58.7
3.	Carving or making models	1.5	7.1	7.5	17.5	66.4
4.	Making pottery, ceramics or jewelry	3.8	4.5	5.3	12.8	73.7
5.	Weaving, macrame, or needlework	6.6	6.3	9.6	16.9	60.7
6.	Using sewing machine and pattern to make clothes	7.1	11.2	11.5	17.8	52.4
7.	Photography (not counting family or party picture-taking)	4.4	7.7	20.3	20.7	46.9
8.	Creating designs or plans for things like clothes, toys, etc.	7.8	10.1	14.6	18.7	48.9
9.	Jogging	20.4	15.6	20.7	14.4	28.9
10.	Walking or hiking	49.8	15.2	12.3	13.4	9.3
11.	Bicycle riding	11.5	21.1	25.2	23.3	18.9
12.	Horseback riding	1.1	4.1	10.4	16.0	68.4
13.	Ice skating or roller skating	0.7	10.1	21.3	29.1	38.8
14.	Dancing	38.2	24.6	14.3	8.5	14.3
15.	Hunting	0.4	1.9	7.8	17.8	72.1

Table 11 (Continued)

USE OF LEISURE TIME

Frequency of Student Participation
(Percent Responding, n = 279)

Item No.	Subgoal	Almost Every Day	Once A Week	1-3 Times A Month	1-8 Times A Year	Less Than Once a Year
16.	Fishing	1.5	4.4	15.4	18.8	59.9
17.	Playing a piano	4.5	4.8	8.9	13.4	68.4
18.	Playing a guitar	4.4	5.1	8.1	8.8	73.5
19.	Playing a musical instrument (other than piano or guitar)	6.7	4.1	5.9	7.4	75.9
20.	Swimming	12.9	16.5	23.5	24.3	22.8
21.	Bowling	3.3	11.9	20.4	27.1	37.2
22.	Tennis or other racquet sports	7.0	13.3	18.1	21.0	40.6
23.	Golf	0.4	1.5	4.1	7.7	86.3
24.	Water or snow skiing	1.1	4.1	8.9	16.0	69.9
25.	Archery	1.5	2.6	4.4	14.8	76.7
26.	Team sports such as softball, etc.	25.2	15.6	21.9	22.6	14.8
27.	Chess, checkers, backgammon or dominoes	7.0	20.2	22.4	24.6	25.7
28.	Bridge	0.4	3.7	3.4	9.3	83.2
29.	Card games other than bridge	12.3	18.4	28.9	18.4	21.4
30.	Billiards or pool	11.4	17.4	24.6	17.4	29.2
31.	Watching television	83.2	8.6	3.4	1.5	3.4
32.	Going to the movie theater	3.3	31.5	41.4	16.8	7.0

Table 11 (Continued)

USE OF LEISURE TIME

Frequency of Student Participation
(Percent Responding, n = 279)

Item No.	Subgoal	Almost Every Day	Once A Week	1-3 Times A Month	1-8 Times A Year	Less Than Once a Year
33.	Going to stage plays	1.5	3.4	15.7	30.7	48.7
34.	Acting or participating in a stage play	1.5	2.2	6.4	16.5	73.4
35.	Singing, either alone or in a group	22.5	13.9	10.1	9.4	44.2
36.	Going to opera, concerts or other musical performances	1.1	4.9	19.9	30.0	44.2
37.	Visiting museums, or art galleries	1.1	3.0	10.0	30.6	55.4
38.	Reading a book or magazine	40.0	24.1	17.4	13.3	5.2
39.	Work on a car or cycle	10.7	11.9	12.2	13.7	51.5
40.	Woodworking such as cabinets, etc.	3.0	7.8	13.0	20.1	56.1
41.	Working on lawn or garden	3.3	21.0	27.9	16.5	31.3
42.	Working with animals	18.0	11.3	12.4	17.7	40.6
43.	Listen to music from records or tapes	83.6	10.1	3.0	1.9	1.5
44.	Listen to music from radio	93.7	3.3	0.7	1.1	1.1
45.	Cooking	45.7	29.2	11.6	6.7	6.7

Table 12

USE OF LEISURE TIME

Frequency of Student Participation
(Percent Responding, n = 279)

Goal Ind. Nos.	Subgoal	Almost Every Day	Once A Week	1-3 Times A Month	1-8 Times A Year	Less Than Once a Year
1,2,3	Lifetime Sports	3.6	8.9	14.2	18.6	54.7
4,5,6	Team Sports	25.2	15.6	21.9	22.6	14.8
7,8	Outdoor Activities	0.9	3.1	11.6	18.3	66.0
9,10	Individual Activities	12.4	11.2	15.9	18.9	41.7
11,12,13	Non-Exertive Games	7.9	15.0	19.8	17.5	39.9
14,15	Crafts	5.8	8.0	10.6	18.4	57.1
16,17	Artistic Activities	11.8	9.0	10.6	12.1	56.6
18	Receptive Activities	38.4	11.1	14.0	15.7	20.8
19,20	Household Activities	14.6	15.4	14.8	15.4	39.8

USE OF LEISURE TIME

Table 13

Preferred Reading-12th Grade Students
(By percent, n = 279)

Fiction	%	Non-Fiction	%
Mystery	25.6	Biography/Auto Biog.	29.9
Romance/Gothic	24.8	Sports	25.0
Horror	14.0	Current Events	10.8
Historical Novel	10.1	Do-It-Yourself Manual	10.1
Science Fiction	9.7	None	8.6
Western	7.0	History	7.8
None	7.0	Travel	4.1
Spy Story	1.9	Science	3.7

Table 14

Frequency of Reading Various Sources
(By percent, n = 279)

	Almost Every Day	Once a Week	One-Three Times A Month	One-Eight Times A Year	Less Than Once a Year
Daily Newspaper	62.0	23.0	7.3	2.9	4.7
News Magazines	11.3	27.6	24.0	14.9	22.2
Fiction Books	8.5	18.4	31.3	29.4	12.5
Non-Fiction Books	9.3	14.1	36.7	23.7	16.3
Business Publications	2.9	10.2	23.6	20.7	42.5

Table 15

Preference in Music Listening
(By percent, n = 279)

	First Place	Second Place	Third Place	Fourth Place	Fifth Place
Rock	51.7	34.1	10.3	3.1	.8
Soul	52.1	16.6	11.3	9.8	10.2
Pop	11.1	19.8	49.6	13.7	5.7
Classical	1.6	5.4	14.7	48.4	29.8
Country-Western	1.9	9.2	13.1	22.3	53.5

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

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Abstract

Pilot Accreditation Program: Intellectual Discipline

Evaluator: Robert P. Grobe

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's Goals for Public School Education were adopted in August, 1976).
2. Complete a self-assessment (needs assessment) based on the adopted goals. (This report focuses on assessment of the three goals related to intellectual discipline.)
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February 1978).
4. Implement the five-year plan and show evidence of the effects. (To begin in March 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the TEA goal area of intellectual discipline. The results are intended to focus efforts in developing a five-year plan to improve education in the DISD schools. Some general information related to intellectual discipline is presented in the report entitled "Pilot Accreditation Program: Overview."

Sample: Existing system-wide test data from the Iowa Tests of Basic Skills (ITBS) and Iowa Tests of Educational Development (ITED) were used. Therefore, the sample for norm-referenced test data included all tested students in grades 2, 4, 6, 8, 9, and 12 (exact numbers are listed in the section on "Evaluation Results"). Objectives-referenced test data were collected on all eighth and twelfth grade students who were tested with the Everyday Skills Tests (EST) in reading and mathematics. Subjective survey data were collected concerning language arts, mathematics, social studies, and science. The subjective data sample included: (a) 645 teachers working with mathematics, science, social studies, and language arts; (b) 687 professional personnel other than teachers such as resource teachers, counselors, and principals; (c) 1278 senior students, and (d) 2895 community members. Approximately, two-thirds of the surveys were returned by teachers, other professional personnel, and students; while only ten percent of the surveys were returned by the community.

Evaluation Design: The DISD Board of Education adopted TEA's comprehensive set of goals entitled Goals for Public School Education in Texas (TEA, 1976). These goals are comprehensive; however, in order to insure communication of their meaning to parents and staff, the goals were reworded for self assessment purposes. The reworded goals dealing with intellectual discipline are listed below:

INTELLECTUAL DISCIPLINE GOALS FOR
DALLAS INDEPENDENT SCHOOL DISTRICT

(adapted from "Goals For Public School Education
in Texas," Texas Education Agency, Spring, 1976)

1. Students should have knowledge of the basic skills (such as reading, writing, and arithmetic) in the early elementary grades along with more advanced courses in the upper grades.

2. Students should have skills in learning how to learn, such as the processes of evaluating information and solving problems in their lives.

3. Students should have the ability to work and learn by themselves.

In planning and implementing such a self-assessment, the TEA guidelines for the self-study (Office of Planning and Evaluation, 1976) were used to focus our own set of idiosyncratic procedures. It should be noted that the TEA guidelines deal with two types of data -- program and student outcome. Program data are generally used in relation with the typical type of accreditation (i.e., checking against principles and standards). Comments in this study will therefore focus primarily on the collection and use of student outcome data.

Instrumentation for the intellectual discipline goal area consisted of both objective tests and subjective surveys. Objective test data were summarized from the system-wide testing efforts in DISD. This included both norm-referenced test data (i.e., ITBS and ITED) and objectives-referenced test data (i.e., Everyday Skills Tests). The ITBS and ITED from which this information was summarized were administered in September, 1976, and measured student achievement in:

Grade 2 -- vocabulary, reading, word analysis language, and mathematics, as measured by the Iowa Tests of Basic Skills (ITBS).

Grades 4, 6 -- vocabulary, reading, language, methods of study, and mathematics, as measured by the Iowa Tests of Basic Skills (ITBS).

Grade 8 -- vocabulary, reading, language, methods of study, and mathematics, as measured by the Iowa Tests of Basic Skills (ITBS).

Grades 9, 12 -- interpretation of reading materials, language usage, quantitative thinking, understanding of basic social concepts, the natural sciences, and the use of sources of information, as measured by the Iowa Tests of Educational Development (ITED).

For more specific information the reader should refer to the *Norm-referenced Performance Profiles* (Whitmore & Meier, 1977) and the *Norm-referenced Measurement Profiles* (Whitmore & Meier, 1977).

Objectives-referenced test (i.e., Everyday Skills Test) data summarized in this report were collected from tests administered to the eighth grade in February, 1977, and to the twelfth grade in March, 1977. These tests measured student achievement as related to the series of reading and mathematics topics listed below:

READING TOPICS CONTAINED IN THE EVERYDAY SKILLS TEST

1. Labels--vocabulary
2. Telephone directions
3. Medical instructions
4. Labels--caution
5. Ingredients
6. Preparation directions
7. Abbreviation meaning
8. Store directories
9. Job want ads
10. Outdoor signs
11. Tax forms
12. Transportation schedules
13. Job applications
14. Driver's handbook
15. Newspaper reporting (fact vs. opinion)

MATHEMATICS TOPICS CONTAINED IN THE EVERYDAY SKILLS TEST

1. Spending behavior
2. Currency
3. Cost comparison
4. Time calculation
5. Travel time
6. Discount rate
7. Sales tax
8. Rate of interest
9. Income tax calculations
10. Use of chart or scale dimensional drawing
11. Graph
12. Fractions
13. Personal records
14. Approximation
15. Metric measures

For a more detailed description of the Everyday Skills Test as well as a list of objectives for each topic, the reader should refer to an evaluation report by Davis (July, 1977).

Subjective data summarized in this report were originally collected in another study (Lym, 1975), but since the data relate directly to intellectual discipline the decision was made not to collect new data. The first step in collecting these subjective data was the development of an instrument that would give a valid representation of the skills contained in each subject area (i.e., language arts, mathematics, social studies, and science), yet remain short enough in length to use a minimum amount of time in answering. The skills specified in the forms of the instrument for the various subject areas were derived from lists of goals and objectives appearing in the literature and were reviewed by personnel in the Instructional Services Department, administrative personnel in the Secondary Operations Division, and specialists in the subject areas who were in the Department of Research, Evaluation, and Information Systems.

A different form of the survey instrument was designed for each subject area and target population (yielding a total of 16 different forms). Names of forms were given according to population, that is, Teacher Questionnaire, Personnel Questionnaire, Student Questionnaire, and Community Questionnaire. All consisted of three parts: a section for assessment of the instructional program for a given subject area, a section which called for subject areas to be ranked according to need for improvement, and a section which requested personal data. For a given subject area the contents of the first two sections were identical.

The following skills were specified in the assessment sections of the various questionnaires:

Mathematics	Science	Social Studies	Language Arts
Operations	Observation	Political science	Listening
Numbers and values	Numbers and measures	Physical geography	Speaking
Equations and word problems	Classification	Socioeconomic geography	Vocabulary
Geometry	Hypothesizing	Psychology and philosophy	Comprehension
Measurement	Experimentation	Economics	Critical evaluation
Sets	Generalization	Sociology and anthropology	Study and reference
Charts, graphs, and tables	Facts and terminology	History	Literature
Statistics and probability	Purpose	Citizenship	Writing
Interest and appreciation of mathematics	Scientific approach	Appreciation of social studies	Appreciation of language arts
	Interest and appreciation of science		

Ratings of importance and perceived attainment were requested for each of two subclasses of skills, those termed "basic" and those referred to as "higher-order." Basic skills were defined as those which should be possessed by any student leaving the system, whether as a graduate or a dropout. Higher-order skills, on the other hand, were defined as those requiring a higher level of cognition such as that which might be expected for entrance into college. Specific examples, but not a comprehensive list, were given for each subclass of skills.

Scaling of importance and attainment was based on relative numbers of students (1=none, 2=few, 3=some, 4=most, or 5=all) for whom the skill was viewed as important or by whom the skill should be attained. The rationale for such a scale was the anticipated use of the data in a total systems context; that is, the data were expected to be used to establish priorities within each subject area.

As an example of the scale and format, the following was taken from the instrument for language arts.

Important for						Learned by					
No Students	Few Students	Some Students	Most Students	All Students		No Students	Few Students	Some Students	Most Students	All Students	Don't Know
1	2	3	4	5	Basic: Listen carefully and follow spoken directions. Recall what was said. Tell the difference between fact and opinion.	1	2	3	4	5	DK
1	2	3	4	5	Higher-Order: Accurately summarize the content of a spoken message. Follow the sequence of ideas in a spoken message. Understand non-literal and figurative speech.	1	2	3	4	5	DK

Questionnaires were mailed via the intradistrict mail system to professional personnel (other than teachers) on May 9, 1975, and to teachers on May 16, 1975. Parent Questionnaires were mailed via the U.S. mail system on May 26, 1975. For the survey of senior students, questionnaires were aggregated by school and sent to each principal who was asked to coordinate their administration to students. June 6, 1975, was the cutoff date after which any questionnaires which were returned were not processed. By that date completed questionnaires had been received from all high schools; after that date very few additional questionnaires were received daily.

Evaluation Results: Before continuing further the summary statistics used in reporting the results will be defined. The reader should consult Table 1 as this section is read since this discussion will use that table for illustrations.

For the Iowa Tests of Basic Skills (ITBS) and Iowa Tests of Educational Development (ITED), the summary statistic used is the percent of students scoring at or above the fiftieth percentile (large city norms). If the population of Dallas students were identical to the group used in developing percentile norms for the tests, we would expect 50 percent of our students to be at or above the fiftieth percentile. Thus, percentages lower than 50 percent indicate that Dallas students are achieving at a lower level than the norm group; while, percentages higher than 50 percent suggest a level of achievement higher than the norm group.

For the Everyday Skills Test, the summary statistic is the percent of students getting a certain number of items correct. More specifically, we took the 45 items on each subtest and divided those 45 items into five intervals (i.e., 0-9, 10-19, 20-29, 30-39, and 40-45). Then we tallied the number of students who got a raw-score of 0 through 9 and calculated the percent of students in that interval (e.g., 1.8 percent for eighth grade reading). This process was repeated for each interval.

For the subjective survey data, the summary statistic is called a survey discrepancy. A survey discrepancy is defined as the difference between the mean for importance and the corresponding mean for perceived attainment. Since the importance scale range was from 1 to 5 with 5 representing the most important and the attainment scale range was from 1 to 5 with 5 representing the most attained, we can see that the largest survey discrepancy would be 4 (i.e., 5 minus 1) and the smallest would be a negative 4 (i.e., 1 minus 5). Conceptually, skills with a positive survey discrepancy were those for which the existing educational system was viewed as not meeting its expectations, while skills with a negative survey discrepancy were those for which the system was more than meeting its expectations.

Table 1 presents objective test data and subjective survey data side by side. This type of presentation reveals a possible disparity between priorities indicated by the student test scores and the opinions stated by different groups. Mathematics scores on the Iowa Tests of Basic Skills (ITBS) are lower than those for subtests related to language skills at all but grade two. Note that at grade two, 36.4 percent of the students score at or above the fiftieth percentile on the language subtest, while 38.3 percent score at or above the fiftieth percentile on the mathematics subtest. Furthermore, summary scores on the Everyday Skills Mathematics Test are lower than those on the Everyday Skills Reading Test. This information suggests that mathematics should receive a higher priority than reading and language arts. However, opinions reflected by subjective surveys indicate that the different groups choose language arts as the most in need of improvement. As noted in Table 1 "Language" has the largest positive discrepancies for all groups with the exception of teachers, while "Mathematics" has the smallest positive discrepancies for all groups.

Table 1
Objective and Subjective Data
for Three Intellectual Discipline Goals

GOAL AREA: INTELLECTUAL DISCIPLINE	OBJECTIVE TEST DATA	SUBJECTIVE DAT
Goal 1. Basic Skills and Advanced Coursework Goal 2. Learning How to Learn Goal 3. Work and Learn Independently	Iowa Tests of Basic Skills (Grades 2, 4, 6, & 8) and Iowa Tests of Educational Development (Grades 9 & 12): Number and Percent of Students Scoring At or Above the 50th Percentile	Survey Discrepancies:

Grade	No.	V[a]	W	R	L	M	
2	10,279	41.7	42.6	45.7	36.4	38.3	
4	9,384	30.1	30.4	28.6	24.3	22.1	
6	10,214	27.7	27.0	27.0	23.1	20.0	
8	10,335	25.2	25.7	24.7	25.7	20.6	
		R[b]	L	M	SS	S	U
9	10,006	25.2	28.6	35.2	27.1	20.3	25.6
12	6,994	36.5	35.0	35.5	30.9	36.0	40.2

Everyday Skills Test

Test/ Grade	No.	Percent of Students Getting N Items Correct				
		0-9	10-19	20-29	30-39	40-45
Reading						
8	9,669	1.8%	9.0%	15.5%	40.7%	33.0%
12	5,901	0.3%	1.5%	3.3%	19.5%	75.4%
Math						
8	9,577	5.4%	31.6%	36.6%	22.7%	3.6%
12	5,900	0.8%	8.4%	23.6%	38.2%	28.9%

Subject Area	Community	Teachers	Other Professional Staff	Students
Language	1.46	1.32	1.49	1.01
Math	0.98	0.89	0.80	0.71
S.Studies	1.35	1.35	1.34	0.99
Science	1.14	0.97	1.03	0.81
Mean for All Areas	1.23	1.13	1.17	0.88

[a] ITBS Subtests

V = Vocabulary
W = Work-Study Skills
R = Reading Comprehension
L = Language Skills
M = Mathematics Skills

[b] ITED Subtests

R = Reading
L = Language Arts
M = Mathematics
SS = Social Studies
S = Science
U = Use of Sources

A trend which may be noted by examining the ITBS and ITED summary data in Table 1 is the apparent downward trend in all subtest scores until the twelfth grade. Discussion of this trend will be delayed until later because of interacting factors which require more specific information for adequate interpretation.

The summary data presented in Table 1 for both the Reading and Mathematics subtests of the Everyday Skills Test reveal a general improvement from the eighth to the twelfth grade. This improvement is particularly encouraging for the reading subtest with 75.4% of the students scoring 40 to 45 out of a possible 45. While improvement in summary scores from the eighth grade to the twelfth grade for the mathematics subtest is obvious, there is still plenty of room for improvement as only 28.9 percent of the students scored 40 to 45 out of a possible 45. Such improvement is encouraging; however, we must keep this in perspective by remembering that these are essential skills being tested. Thus, we need to work towards assisting students to score even higher on these tests of basic skills.

Before examining the results for the subjective surveys, let us examine the return rates for the surveys:

Survey Population	Number Administered	Number Returned	Percent Returned
Teacher	645	428	66%
Other professional personnel	687	447	65%
Students	1278	907	71%
Community	2895	281	10%

In reviewing the survey discrepancies presented in Table 1, it is interesting to note that community discrepancies are the highest for all subject areas, while student discrepancies are the lowest. This suggests that the community perceives the Dallas educational system as being more undercommitted than any other group. A trend already alluded to which is worthy of a second mention is that most language related skills are perceived as having relatively large positive survey discrepancies (i.e., high priorities), while mathematics related skills are perceived as having the smallest positive survey discrepancies.

Table 2 presents more specific information related to the ITBS and ITED. In examining Table 2, one finds the ITBS and ITED presented in the same format as was the case in Table 1; however, the summary scores are broken down by ethnic groups. Close scrutiny of Table 2 suggests that summary scores for Anglos are relatively close to the expected score for the norm group (i.e.,

TABLE 2

NUMBER & PERCENT OF STUDENTS SCORING AT OR ABOVE THE 50TH PERCENTILE

District Summary for Iowa Tests of Basic Skills

	Anglo						Black						Mex.Am.					
Grade	No.	V	W	R	L	M	No.	V	W	R	L	M	No.	V	W	R	L	M
2	3681	64	66	65	55	59	5050	29	29	34	27	26	1548	30	31	38	23	29
4	3227	57	54	49	46	42	4663	15	18	17	12	11	1494	19	18	21	16	14
6	3517	57	53	49	48	42	5154	11	12	14	8	7	1543	17	18	20	17	13
8	4085	51	51	46	50	42	4838	7	8	9	8	5	1412	13	14	17	16	12

NOTES: V = Vocabulary, W = Working-Study Skills, R = Reading Comprehension, L = Language Skills,
M = Mathematics Skills.

District Summary for Iowa Tests of Educational Development

	Anglo							Black							Mex.Am.						
Grade	No.	R	L	M	SS	S	U	No.	R	L	M	SS	S	U	No.	R	L	M	SS	S	U
9	4283	49	50	51	46	40	47	4584	6	11	23	12	4	8	1139	13	19	25	17	12	16
12	3826	59	53	53	49	58	63	2568	7	11	8	7	7	11	550	18	22	17	16	18	24

NOTES: R = Reading, L = Language Arts, M = Mathematics, SS = Social Studies, S = Science,
U = Use of Sources

50 percent of the students at or above the 50th percentile). Furthermore, the summary scores for Anglos remain fairly constant across grade levels. The values for Anglos range from 66 percent as the highest to 40 percent as the lowest.

As noted in Table 2, summary scores for minorities start at a point considerably lower than the expected score for the norm group (e.g., 34 and 38 percent in reading at the second grade as compared to the expected 50 percent). In general, the summary scores for minorities decrease across grade level. That is, the norm-referenced scores decrease as the students advance to higher grades. This does not imply that the students are not learning anything, because they are. The data do suggest that the norm group is learning at a rate greater than that of the minority groups in Dallas.

Data presented in Table 2 suggest that two trends noted in Table 1 appear to be an artifact of variables related to the schools inability to reverse the decreasing norm-referenced scores for minorities. First, the general downward trend of scores is related to the decrease in minority scores, since the Anglo scores are relatively constant. Second, the apparent increase in summary scores at the twelfth grade which was mentioned in a previous section seems to be an artifact of the reduced minority enrollment at the twelfth grade.

Information related to scores on each objective on the Everyday Skills Test is presented in Table 3. As noted earlier and supported again in Table 3 summary data for the Everyday Skills Test suggest a general improvement from the eighth grade to the twelfth grade in both reading and mathematics. For the sake of discussion, let us arbitrarily choose 75 percent of the students mastering an objective as a criterion of success. Notice that for the reading subtest, 11 of 15 objectives meet the success criterion at the eighth grade while all 15 objectives meet the criterion at the twelfth grade. For the mathematics subtest one of 15 objectives meet the criterion at the eighth grade; this improves to 11 of 15 objectives at the twelfth grade.

Also of note in Table 3 is the fact that Dallas students' performance is considerably better on the reading subtest than on the mathematics subtest. As support for this contention, notice that district-wide, we are successful on all reading objectives at the twelfth grade, while we are unsuccessful on five mathematics objectives (i.e., rate of interest, fractions, personal records, approximation, and metric measures). The difference is much more dramatic at the eighth grade level with 11 of 15 reading objectives meeting our arbitrary success criterion, while only one of 15 mathematics objectives meet the success criterion.

In reviewing the subjective survey data it can be noted that, except for skills in statistics and probability, all the skills in each subject area were considered to be important in an absolute sense by all of the target populations. That is not to say that statistics and probability should be excluded from the mathematics curriculum, but only that they are important for a fewer number of students than any of the other skills in mathematics specified in the survey instrument.

TABLE 3

Percentage of Students Mastering Each Objective on the EVERYDAY SKILLS TESTS (READING)

	Labels - Vocabulary	Telephone Directories	Medical Instructions	Labels - Caution	Ingredients	Preparation Directions	Abbreviation Meaning	Store Directories	Job Want Ads	Outdoor Signs	Tax Forms	Transportati Schedules	Job Applications	Driver's Handbook	Fact vs. Opinion
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Grade 8	92	89	84	76	83	82	83	85	79	81	69	77	64	50	43
Grade 12	99	98	97	95	97	97	96	97	96	96	93	94	92	84	75

Percentage of Students Mastering Each Objective on the EVERYDAY SKILLS TESTS (MATHEMATICS)

	Spending Behavior	Currency	Cost Comparison	Time Calculation	Travel Time	Discount Rate	Sales Tax	Rate of Interest	Income Tax Calculations	Determine Distance, Measurement, Position	Graph	Fractions	Personal Records	Approximation	Metric Measures
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Grade 8	87	74	74	56	62	47	37	28	42	54	56	37	19	32	20
Grade 12	98	93	93	86	87	75	75	62	81	78	82	71	48	65	36

Tables 4, 5, 6, and 7 list the skills with their survey discrepancies in each of the subject areas. For the reader's convenience the three top ranked skills are marked with an "X." Remember that a survey discrepancy is defined as the difference between the mean for importance and the corresponding mean for perceived attainment. A point of interest in examining Tables 4, 5, 6, and 7 is the similarities of the priorities that are set among the different groups. While some differences do occur among groups, it is interesting that the different groups often identify the same skills as having the highest discrepancies.

In addition to the information summarized in Tables 4-7, respondents also ranked subject areas according to need for improvement. A rank of one was given to the subject area having the greatest need for improvement, and so on until a rank of four was assigned to the area having the least need for improvement. Analysis of the data showed that subject areas when ranked remained in the same order for each population. The order was language arts, mathematics, social studies, and science. Further, the magnitude of the distance between the distributions for language arts and mathematics was greater than the distance between any other two adjacent distributions. Thus, in comparison to other subject areas, language arts was clearly viewed by all groups as having the greatest need for improvement.

TABLE 4

LANGUAGE ARTS SKILLS	TEACHERS			PROFESSIONAL PERSONNEL			STUDENTS			PARENTS		
	Need			Need			Need			Need		
	SD	R	P	SD	R	P	SD	R	P	SD	R	P
BASIC SKILLS												
Listening	1.53	2.5	x	1.71	2	x	1.15	2	x	1.77	1	x
Speaking	1.51	5		1.55	5		1.04	4.5		1.69	3	x
Vocabulary	1.36	7		1.41	9		1.04	4.5		1.53	6	
Comprehension	1.62	1	x	1.64	3	x	1.11	3	x	1.71	2	x
Critical Evaluation	1.53	2.5	x	1.89	1	x	1.26	1	x	1.67	4	
Study Reference	1.10	9		1.42	8		0.80	9		1.41	8	
Literature	1.13	8		1.43	7		0.81	8		1.25	9	
Writing	1.52	4		1.60	4		0.99	6		1.56	5	
Interest & Appreciation	1.46	6		1.54	6		0.91	7		1.51	7	
HIGHER-ORDER SKILLS												
Listening	1.42	2	x	1.58	2	x	1.03	4.5		1.68	3	x
Speaking	1.50	1	x	1.38	6		1.21	2	x	1.73	1	x
Vocabulary	1.23	6		1.42	4.5		1.28	1	x	1.39	5	
Comprehension	1.27	5		1.47	3	x	1.03	4.5		1.43	4	
Critical Evaluation	1.31	4		1.64	1	x	1.13	3	x	1.70	2	x
Study Reference	1.14	7		1.30	7		0.82	7		1.38	6	
Literature	0.84	9		1.16	9		0.79	9		0.80	9	
Writing	0.99	8		1.21	8		0.80	8		0.92	8	
Interest & Appreciation	1.33	3	x	1.42	4.5		0.99	6		1.19	7	

NOTES: SD = Survey Discrepancy. R = Rank. P = Priority, the three highest Need Indexes are checked for your convenience in locating them.

TABLE 5

MATHEMATICS SKILLS	TEACHERS Need SD	TEACHERS Need R	TEACHERS Need P	PROFESSIONAL PERSONNEL Need SD	PROFESSIONAL PERSONNEL Need R	PROFESSIONAL PERSONNEL Need P	STUDENTS Need SD	STUDENTS Need R	STUDENTS Need P	PARENTS Need SD	PARENTS Need R	PARENTS Need P
BASIC SKILLS												
Operations	1.28	2	x	1.25	2	x	0.90	2	x	1.28	3.5	x
Numerations	1.18	5		1.18	3	x	0.82	3	x	1.28	3.5	x
Equations	1.23	3	x	0.96	6		0.74	6		1.30	2	x
Geometry	0.99	6		0.99	5		0.68	7		1.14	6	
Measurement	1.19	4		1.10	4		0.75	5		1.25	5	
Algebra [illegible] Sets	0.56	9		0.68	8		0.40	9		0.68	9	
Charts, Graphs, & Tables	0.96	7		0.94	7		0.77	4		1.02	7	
Statistics & Probability	0.73	8		0.62	9		0.67	8		0.78	8	
Interest & Appreciation	1.40	1	x	1.38	1	x	0.99	1	x	1.55	1	x
HIGHER-ORDER SKILLS												
Operations	0.70	5		0.77	2	x	0.66	7		0.95	2	x
Numerations	0.69	6		0.56	5		0.68	4		0.86	4	
Equations	0.75	3	x	0.54	6		0.67	5.5		0.84	5	
Geometry	0.59	9		0.46	7		0.67	5.5		0.79	6	
Measurement	0.89	2	x	0.66	3	x	0.85	1	x	0.78	7	
Algebra of Sets	0.62	7.5		0.45	8		0.53	9		0.50	9	
Charts, Graphs, & Tables	0.73	4		0.59	4		0.70	3	x	0.89	3	x
Statistics & Probability	0.62	7.5		0.38	9		0.56	8		0.72	8	
Interest & Appreciation	0.98	1	x	0.89	1	x	0.77	2	x	1.06	1	x

NOTES: SD = Survey Discrepancy. R = Rank. P = Priority, the three highest Need Indexes are checked for your convenience in locating them.

TABLE 6

SOCIAL STUDIES SKILLS	TEACHERS			PROFESSIONAL PERSONNEL			STUDENTS			PARENTS		
	Need			Need			Need			Need		
	SD	R	P	SD	R	P	SD	R	P	SD	R	P
BASIC SKILLS												
Political Science	1.59	2.5	x	1.58	4		1.25	2.5	x	1.60	4	
Physical Geography	1.50	4.5		1.33	7.5		0.69	8		1.20	7	
Socioeconomic Geography	1.45	7		1.39	6		0.96	6		1.50	6	
Psychology & Philosophy	1.50	4.5		1.87	1	x	1.22	4		1.87	2	x
Economics	1.69	1	x	1.80	2	x	1.31	1	x	1.92	1	x
Sociology & Anthropology	1.49	6		1.65	3	x	1.10	5		1.52	5	
History	1.36	9		0.97	9		0.60	9		1.03	9	
Citizenship	1.59	2.5	x	1.57	5		1.25	2.5	x	1.61	3	x
Appreciation of Social Studies	1.42	8		1.33	7.5		0.84	7		1.15	8	
HIGHER-ORDER SKILLS												
Political Science	1.18	6		1.39	2	x	1.05	4		1.47	2	x
Physical Geography	1.07	9		0.95	8		0.71	9		0.94	2	x
Socioeconomic Geography	1.27	2	x	1.11	6		0.93	5.5		1.29	5	
Psychology & Philosophy	1.09	7.5		1.03	7		0.93	5.5		1.08	6	
Economics	1.24	3	x	1.26	4		1.28	1	x	1.51	1	x
Sociology & Anthropology	1.23	4.5		1.51	1	x	1.07	3	x	1.31	4	
History	1.23	4.5		1.15	5		0.82	7		0.99	7	
Citizenship	1.31	1	x	1.34	3	x	1.11	2	x	1.46	3	x
Appreciation of Social Studies	1.09	7.5		0.90	9		0.72	8		0.91	9	

NOTES: SD = Survey Discrepancy. R = Rank. P = Priority, the three highest Need Indexes are checked for your convenience in locating them.

TABLE 7

SCIENCE SKILLS	TEACHERS			PROFESSIONAL PERSONNEL			STUDENTS			PARENTS		
	Need			Need			Need			Need		
	SD	R	P	SD	R	P	SD	R	P	SD	R	P
BASIC SKILLS												
Observation	1.05	5		1.08	5.5		0.82	5.5		1.18	7	
Measurement	1.18	1	x	1.15	4		0.96	1	x	1.36	3	x
Classification	0.85	10		1.06	8		0.55	10		0.94	10	
Hypothesize	1.04	6		1.19	3	x	0.86	4		1.45	1	x
Experimentation	0.96	8		1.08	5.5		0.81	7		0.97	9	
Generalization	1.08	4		1.07	7		0.82	5.5		1.16	8	
Facts & Terminology	0.93	9		1.01	9		0.71	8		1.20	6	
Nature & Purpose	1.02	7		0.93	10		0.68	9		1.26	4.5	
Scientific Approach	1.09	3	x	1.24	1	x	0.92	2	x	1.26	4.5	
Interest & Appreciation	1.13	2	x	1.23	2	x	0.87	3	x	1.37	2	x
HIGHER-ORDER SKILLS												
Observation	0.85	7		0.85	8		0.71	9		1.16	3.5	x
Measurement	1.02	2	x	0.97	4		0.91	2	x	1.36	2	x
Classification	0.80	9		0.93	5		0.72	8		1.04	6	
Hypothesize	1.00	3	x	1.09	2	x	0.88	3	x	1.09	5	
Experimentation	0.92	4		0.91	6		0.80	5		0.88	9	
Generalization	0.91	5		0.84	9		0.74	6.5		0.78	10	
Facts & Terminology	0.65	10		0.83	10		0.74	6.5		0.93	8	
Nature & Purpose	0.84	8		0.89	7		0.70	10		0.95	7	
Scientific Approach	0.90	6		0.99	3	x	0.84	4		1.16	3.5	x
Interest & Appreciation	1.23	1	x	1.23	1	x	1.06	1	x	1.39	1	x

NOTES: SD = Survey Discrepancy. R = Rank. P = Priority, the three highest Need Indexes are checked for your convenience in locating them.

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

ST77-119-8-12 Validation of Secondary Literacy Testing Program in Reading and Mathematics, 1977, Robbie G. Davis.

75-562 System-wide Assessment 1974-75: Students and Educators, 1975, C. LaVor Lym, 45 pages.

IE77-071-3-32

Abstract

Pilot Accreditation Program:
Personal and Social Relations

Evaluator: Thomas C. Holland

Objectives of the Program: During the 1976-77 school year the Texas Education Agency (TEA) worked with the Dallas Independent School District (DISD), along with the other member schools of the Texas Council of Major School Districts, in a pilot school accreditation program. The pilot accreditation program focuses upon developing a renewal and accountability system so as to comply with the guidelines described in the "Principles and Standards for Accrediting Elementary and Secondary Schools," TEA Bulletin 560. The basic idea is that TEA wants to focus more on how well a school district can identify intended student outcomes and how well it can produce these outcomes as the basic criteria for accreditation of the school district. To implement such a scheme, TEA is requiring DISD and many other districts to do the following:

1. Adopt a set of goals and goal indicators for DISD. (TEA's *Goals for Public School Education* were adopted in August, 1976.)
2. Complete a self-assessment (needs assessment) based on the adopted goals. This report focuses on assessment of the three goals relating to personal and social relations.
3. Use the self-assessment information as a basis for developing a five-year plan to improve education in DISD schools. (To be done by February, 1978.)
4. Implement the five-year plan and show evidence of the effects. (To begin in March, 1978.)

Purpose of the Evaluation: The second phase of the Pilot Accreditation Program, the self-assessment, requires that school districts determine how well their students are performing in relation to the district's student development goals. This report is concerned with obtaining and presenting detailed information related to the goal area of personal and social relations. The results are intended to focus efforts in developing a five-year plan to improve education in DISD schools.

Sample: Subjective survey instruments relating to the three goals concerning personal and social relations were administered to parents, teachers and students.

The sampling procedure for selection of high school respondents to receive the subjective instruments consisted of a purposive sample of District high schools. Schools were selected as recipients of the instrument based on their having the appropriate number of students. A given number of instruments (both student surveys and parent surveys) were delivered to each school and school administrators were required to choose a sample of students which they considered to be representative of the population of the school. A portion of this student sample was asked to respond to the Student Surveys, and the remaining portion was asked to take the Parent Surveys home to be completed and returned. A total of 400 Student Surveys and 490 Parent Surveys were administered at ten high schools. Teachers at each school within the District were surveyed using the Subjective Teacher Survey on Personal and Social Relations. A small number of surveys (2-4) was given to each principal with the direction that they be given to knowledgeable and involved teachers. A total of 382 teacher surveys were returned by this method.

Evaluation Design: The DISD Board of Education adopted the Texas Education Agency's comprehensive goals entitled Goals for Public School Education in Texas (TEA, 1976). The goals relating to the topic of Personal and Social Relations are as follows:

1. Students should have knowledge of how and why people act and behave as they do.

2. Students should have skills in getting along with other people and in developing moral standards.

3. Students should be able to make necessary changes in their lives as times change.

For each goal, a series of goal indicators was developed to achieve greater specificity and facilitate the development of survey instruments.

All of the analyses for the three goals relating to personal and social relations came from subjective data. Two types of analyses were conducted. Initially, a need index was determined for each goal and goal indicator to serve as an indication of whether the respondents felt the District was undercommitted or overcommitted to a given goal. These need indexes were computed by ranking the way each person (parents, students, and teachers) responded to the survey items. More specifically, a person's responses were ranked as shown in Table 1. These respondent rankings were then averaged across items to obtain a need index for each goal and goal indicator. Need indexes in the 12 to 16 range indicated that respondents felt a goal was relatively important and required more emphasis, thus suggesting that respondents placed a relatively high need for improvement on that goal or indicator. Need indexes in the 1 to 4 range indicated a need to reduce the effort devoted to a goal or goal indicator.

Table 1

Type of Responses

Type of Response	Rank
Very Important & Lot More Emphasis	16
Moderately Important & Lot More Emphasis	15
Slightly Important & Lot More Emphasis	14
Very Important & Little More Emphasis	13
Moderately Important & Little More Emphasis	12
Slightly Important & Little More Emphasis	11
Not Important & Lot More Emphasis	10
Not Important & Little More Emphasis	9
Very Important & Little Less Emphasis	8
Very Important & Lot Less Emphasis	7
Moderately Important & Little Less Emphasis	6
Slightly Important & Little Less Emphasis	5
Not Important & Little Less Emphasis	4
Moderately Important & Lot Less Emphasis	3
Slightly Important & Lot Less Emphasis	2
Not Important & Lot Less Emphasis	1

The second type of analysis for the subjective data consisted of determining the mean score for importance, from four possible responses, and the mean score for importance, from four possible responses, and the mean score for emphasis, also from four possible responses. the four point Likert scale was utilized as follows:

How Important?	How Much Emphasis?
4 = Very Necessary	4 = Heavy Emphasis
3 = Moderately Necessary	3 = Moderate Emphasis
2 = Slight Necessary	2 = Slight Emphasis
1 = Not Necessary	1 = No Emphasis

Evaluation Results: Table 2 indicates the total need indexes from all responses. Goal 17 was the lowest rated goal of the three related to personal and social relations. The five indicators with the highest need indexes in rank order for Goal 17 were as follows:

1. the effects of drug abuse (goal indicator 6),
2. how the family affects the behavior of people (goal indicator 7),
3. what causes people to act the way they do (goal indicator 2),

Table 2

Need Indexes and Corresponding Red Flags

GOALS & GOAL INDICATORS	NEED INDEX	RED FLAGS
GOAL 17: Students should have knowledge of how and why people act and behave as they do.	11.51	Lowest rated goal of the three related to personal and social relations.
KNOWLEDGE ABOUT:		
(1) major personality theories in psychology.	9.91	
(2) what causes people to act the way they do.	12.60	High need
(3) how people's behavior is affected by their emotions.	12.12	High need
(4) how people use defense mechanisms (fantasy, daydreaming) to protect themselves.	10.20	
(5) how peer groups affect the behavior of people.	12.37	High need
(6) the effects of drug abuse.	14.04	Highest rated indicator for Goal 17.
(7) how the family affects the behavior of people.	12.65	High need
(8) how people are affected by their culture.	11.70	
(9) how advanced technology affects the individual's behavior.	10.17	
(10) how a person's feelings are related to the way he/she acts.	12.24	High need
(11) how the drive to satisfy basic needs affects the way in which we behave.	11.49	
(12) modern society as complex and changing.	11.02	
(13) the ways to adjust to social change.	11.80	
(14) the ways groups are organized.	9.27	
(15) the ways in which cultures change.	10.38	
(16) how change affects a person's behavior.	11.54	
(17) how mass communication (TV, radios) affects the behavior of people.	12.28	High need

Table 2

Need Indexes and Corresponding Red Flags

Page 2.

GOALS & GOAL INDICATORS	NEED INDEX	RED FLAGS
GOAL 18: Students should have skills in getting along with other people and in developing moral standards.	13.47	Highest rated goal of the three related to personal and social relations.
SKILLS IN:		
(18) determining accepted ethical and moral standards of behavior.	12.47	High need
(19) being a responsible member of society.	13.84	High need
(20) determining ways to get along with other people.	14.20	Highest rated indicator for Goal 18
(21) understanding of the ways in which different groups can learn to get along and work together.	13.36	High need
(22) demonstrating the ability to communicate within a group.	13.09	High need
(23) understanding that certain factors are necessary for a democracy to succeed, including: a spirit of compromise and mutual trust, a respect for the rights of minorities and loyal opposition, ethical values, and participation by the citizen in government at all levels.	13.92	High need
GOAL 19: Students should be able to make necessary changes in their lives as times change.	11.68	
COMPETENCIES IN:		
(24) relating education to personal well-being.	12.93	High need
(25) relating income to personal well-being.	11.20	
(26) relating a type of occupation to personal well-being.	11.99	
(27) relating standard of living to housing patterns.	10.15	

Table 2

Need Indexes and Corresponding Red Flags

Page 3.

GOALS & GOAL INDICATORS	NEED INDEX	RED FLAGS
Goal 19 (Cont'd.)		
(28) relating changes in the way people live to changes in political attitudes.	10.31	
(29) relating increased personal freedom to greater personal responsibilities.	13.40	Highest rated indicator for Goal 19

4. how peer groups affect the behavior of people (goal indicator 5),
5. how mass communication (TV, radios, etc.) affect the behavior of people (goal indicator 17).

Goal 18, related to moral standards and skills in getting along with people, not only had the highest need index of the three goals but also had one of the highest need indexes when all goals across all subject areas were considered. All indicators for this goal exceeded the 12.0 criteria for a high need index. Indicator 20, "determining ways to get along with other people," was the highest rated indicator with a need index of 14.20.

For Goal 19, only two of the six indicators exceeded the 12.0 criteria. The two indicators were:

1. relating increased personal freedom to greater personal responsibilities, with a need index of 13.40, and

2. relating education to personal well-being, with a need index of 12.93.

Table 3 examines the need indexes for personal and social relations by each of the subdistricts in the District. Results for the most part mirrored the results for the sample population reported in Table 2. Again, all subdistricts ranked Goal 18, moral standards and getting along with other people, as the highest need.

The need indexes for the Goal 17 indicators were consistent for the most part across all subdistricts. The few inconsistencies were all relatively close to the 12.0 criteria. Reported inconsistencies generally came from the NE and SE subdistricts.

Indicators for Goal 18 were all reported as high needs. Highest need indexes for all subdistricts were for indicator #20, "determining ways to get along with other people."

Inconsistent need indexes were more evident in Goal 19. Both the EOC and SW subdistricts felt that the goal was a high need while the other subdistricts disagreed. One indicator, relating to type of occupation to personal well-being, was ranked higher by EOC and SW subdistricts than the other three subdistricts.

Table 3

Need Indexes by Subdistrict

GOALS & GOAL INDICATORS	SUBJECTIVE DATA					RED FLAGS
	Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	
GOAL 17: Students should have knowledge of how and why people act and behave as they do.	11.2	11.8	11.2	11.7	11.7	
KNOWLEDGE ABOUT:						
(1) major personality theories in psychology.	9.6	9.9	10.1	10.8	9.5	
(2) what causes people to act the way they do.	12.6	13.0	12.9	12.7	12.5	High Need Indexes in all areas
(3) how people's behavior is affected by their emotions.	12.1	12.4	11.8	12.4	12.0	
(4) how people use defense mechanisms (fantasy, daydreaming) to protect themselves.	10.6	10.6	9.2	10.1	10.3	
(5) how peer groups affect the behavior of people.	12.2	13.0	11.4	11.8	13.3	High Need Index in all but SE and EOC subdistricts
(6) the effects of drug abuse.	13.7	13.9	14.1	14.5	14.2	High Need Indexes in all areas
(7) how the family affects the behavior of people.	12.4	13.3	11.9	12.5	13.1	High Need Index in all but SE subdistrict
(8) how people are affected by their culture.	11.4	12.0	11.7	11.9	11.6	
(9) how advanced technology affects the individual's behavior.	9.6	10.7	9.6	10.9	10.4	
(10) how a person's feelings are related to the way he/she acts.	11.9	12.6	12.4	12.4	12.1	High Need Index in all subdistricts

Tab

Need Indexes

GOALS & GOAL INDICATORS Subdistricts→	NW	
Goal 17 (Cont'd.)		
(11) how the drive to satisfy basic needs affects the way in which we behave.	11.2	11
(12) modern society as complex and changing.	10.6	11
(13) the ways to adjust to social change.	11.9	12
(14) the ways groups are organized.	8.5	9
(15) the ways in which cultures change.	9.8	10
(16) how change affects a person's behavior.	10.9	12
(17) how mass communication (TV, radios) affects the behavior of people.	12.0	13
GOAL 18: Students should have skills in getting along with other people and in developing moral standards.	13.3	13
SKILLS IN:		
(18) determining accepted ethical and moral standards of behavior.	12.3	12
(19) being a responsible member of society.	13.6	14

le 3

by Subdistrict

SUBJECTIVE DATA				RED FLAGS
Need Indexes				
NE	SE	EOC	SW	
1.5	11.5	11.4	12.0	High Need Index in SW subdistrict
1.4	10.8	11.1	11.2	
2.4	11.5	11.2	11.8	High Need Index in NE subdistrict
.1	9.2	10.3	9.7	
.3	10.5	10.9	10.8	
2.9	11.7	11.6	11.7	High Need Index in NE subdistrict
3.2	11.7	12.2	12.4	Very high need index in NE subdistrict
3.7	13.3	13.6	13.6	High Need Index in all areas for Goal 18
2.8	11.9	12.7	12.6	High Need Index in all subdistricts
.2	13.7	13.8	14.0	High Need Index in all subdistricts

Table

Need Indexes b

GOALS & GOAL INDICATORS		
Subdistricts→	NW	N
Goal 18 (Cont'd.)		
(20) determining ways to get along with other people.	13.8	14.
(21) understanding of the ways in which different groups can learn to get along and work together.	13.3	13.
(22) demonstrating the ability to communicate within a group.	13.0	13.
(23) understanding that certain factors are necessary for a democracy to succeed, including: a spirit of compromise and mutual trust, a respect for the rights of minorities and loyal opposition, ethical values, and participation by the citizen in government at all levels.	13.7	13.
GOAL 19: Students should be able to make necessary changes in their lives as times change.	11.4	11.
COMPETENCIES IN:		
(24) relating education to personal well-being.	12.7	13.
(25) relating income to personal well-being.	11.0	10.

3

y Subdistrict

UBJECTIVE DATA				RED FLAGS
Need Indexes				
	SE	EOC	SW	
3	14.4	14.3	14.4	High Need Index in all subdistricts
5	13.0	13.4	13.5	High Need Index in all subdistricts
2	13.0	13.1	13.2	High Need Index in all subdistricts
9	13.8	14.2	14.1	High Need Index in all subdistricts
7	11.4	12.9	12.0	High Need Index in EOC and SW subdistricts
5	12.4	13.3	12.9	High Need Index in all subdistricts
7	11.6	11.7	11.3	

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Table 3

Need Indexes by Subdistrict

Page 4.

GOALS & GOAL INDICATORS	SUBJECTIVE DATA					RED FLAGS
	Need Indexes					
Subdistricts→	NW	NE	SE	EOC	SW	
Goal 19 (Cont'd.)						
(26) relating a type of occupation to personal well-being.	11.8	11.9	11.6	12.2	12.6	High Need Index in EOC and SW subdistricts
(27) relating standard of living to housing patterns.	9.5	9.6	10.4	10.9	10.8	
(28) relating changes in the way people live to changes in political attitudes.	9.5	10.3	9.7	11.9	10.8	
(29) relating increased personal freedom to greater personal responsibilities.	13.4	13.6	12.7	13.1	13.9	High Need Index in all subdistricts

Table 4 provides the mean ratings for importance, the mean ratings for emphasis, and the need indexes for the three sample populations — students, parents, and teachers. Although the mean ratings for emphasis were lower, in a number of cases, than the mean ratings for importance, the differences were not great enough to be considered important.

For the three goals, the teacher group reported higher need indexes than either the students or parents. Again, Goal 18, developing moral standards and getting along with other people, received the highest need index from all three sample populations.

Results for the indicators for Goal 17 were replications of results previously reported. Exceptions were indicators 3, 8, 10, 11, 13, 16, and 17, which were given a high need index by teachers but not by parents or students.

Results for the indicators for Goals 18 and 19 were replications of results previously reported. In summary, teachers reported higher need indexes than parents or students on all three goals and a number of indicators, especially those relating to human behavior.

Table 4

Mean Ratings and Need Indexes

GOALS & GOAL INDICATORS	SUBJECTIVE DATA								
	Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 17: Students should have knowledge of how and why people act and behave as they do.	2.9	3.0	3.2	2.9	3.0	3.1	10.8	11.2	12.1
KNOWLEDGE ABOUT:									
(1) major personality theories in psychology.	2.7	2.8	2.6	2.8	2.8	2.7	10.2	10.3	9.5
(2) what causes people to act the way they do.	3.2	3.2	3.4	3.2	3.2	3.3	12.2	12.2	13.1
(3) how people's behavior is affected by their emotions.	3.0	3.1	3.4	3.0	3.0	3.3	11.5	11.5	12.8
(4) how people use defense mechanisms (fantasy, daydreaming) to protect themselves.	2.6	2.7	3.0	2.5	2.8	3.0	9.0	10.1	11.2
(5) how peer groups affect the behavior df people.	3.0	3.1	3.6	2.9	3.1	3.4	11.0	11.6	13.7
(6) the effects of drug abuse.	3.5	3.8	3.8	3.4	3.7	3.5	13.4	14.6	14.2
(7) how the family affects the behavior of people.	3.1	3.3	3.5	3.0	3.2	3.4	11.5	12.4	13.6
(8) how people are affected by their culture.	3.0	3.0	3.4	2.9	2.9	3.2	11.0	11.1	12.5

Table 4

Mean Ratings and Need Indexes

Page 2.

GOALS & GOAL INDICATORS	SUBJECTIVE DATA								
	Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
Goal 17 (Cont'd.)									
(9) how advanced technology affects the individual's behavior.	2.7	2.8	2.9	2.7	2.9	2.8	9.6	10.6	10.4
(10) how a person's feelings are related to the way he/she acts.	3.1	3.1	3.4	3.0	3.1	3.3	11.6	11.7	13.0
(11) how the drive to satisfy basic needs affects the way in which we behave.	2.9	3.0	3.3	2.8	3.0	3.1	10.6	11.4	12.2
(12) modern society as complex and changing.	2.8	2.9	3.1	2.8	2.9	3.0	10.5	10.7	11.5
(13) the ways to adjust to social change.	3.0	3.0	3.3	3.0	3.0	3.2	11.1	11.3	12.5
(14) the ways groups are organized.	2.5	2.6	2.7	2.5	2.6	2.7	8.7	9.0	9.8
(15) the ways in which cultures change.	2.7	2.7	3.0	2.7	2.8	2.9	9.6	10.0	11.1
(16) how change affects a person's behavior.	3.0	3.0	3.2	2.9	3.0	3.1	11.0	11.2	12.1
(17) how mass communication (TV, radios) affects the behavior of people.	3.2	3.1	3.4	3.1	3.1	3.3	11.9	11.7	12.2

Table 4

Mean Ratings and Need Indexes

Page 3.

GOALS & GOAL INDICATORS	SUBJECTIVE DATA								
	Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 18: Students should have skills in getting along with other people and in developing moral standards.	3.4	3.4	3.7	3.3	3.4	3.5	12.8	13.1	14.1
SKILLS IN:									
(18) determining accepted ethical and moral standards of behavior.	3.0	3.3	3.5	3.0	3.2	3.4	11.1	12.5	13.4
(19) being a responsible member of society.	3.3	3.5	3.8	3.3	3.4	3.7	12.7	13.5	14.8
(20) determining ways to get along with other people.	3.6	3.4	3.8	3.5	3.4	3.7	13.8	13.5	14.8
(21) understanding of the ways in which different groups can learn to get along and work together.	3.4	3.3	3.6	3.3	3.4	3.5	12.8	13.1	13.8
(22) demonstrating the ability to communicate within a group.	3.3	3.3	3.5	3.2	3.3	3.4	12.6	12.8	13.5
(23) understanding that certain factors are necessary for a democracy to succeed, including: a spirit of compromise and mutal trust, a respect for the rights of minorities and loyal opposition, ethical values, and participation by the citizen in government at all levels.	3.6	3.4	3.7	3.4	3.4	3.6	13.6	13.2	14.4

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Table 4

Mean Ratings and Need Indexes

GOALS & GOAL INDICATORS	SUBJECTIVE DATA								
	Mean Rating for Importance			Mean Rating for Emphasis			Mean Need Index		
	Students	Parents	Teachers	Students	Parents	Teachers	Students	Parents	Teachers
GOAL 19: Students should be able to make necessary changes in their lives as times change.	3.1	3.1	3.2	3.0	3.1	3.1	11.4	11.6	11.9
COMPETENCIES IN:									
(24) relating education to personal well-being.	3.3	3.3	3.5	3.2	3.3	3.4	12.3	12.8	13.4
(25) relating income to personal well-being.	3.1	3.0	3.0	3.0	2.9	3.0	11.1	11.0	11.3
(26) relating a type of occupation to personal well-being.	3.1	3.2	3.2	3.1	3.2	3.1	11.8	12.1	12.1
(27) relating standard of living to housing patterns.	2.8	2.8	2.8	2.8	2.7	2.8	10.1	10.0	10.3
(28) relating changes in the way people live to changes in political attitudes.	2.8	2.8	2.8	2.8	2.9	2.8	10.1	10.5	10.4
(29) relating increased personal freedom to greater personal responsibilities.	3.4	3.4	3.5	3.4	3.3	3.5	13.2	13.0	13.8

Additional Information:

IE77-071-9-9 Pilot Accreditation Programs, 1977, Russell A. Chadbourn, Robert P. Grobe, Thomas C. Holland.

IE77-068-3-5

Abstract

Progress Report on the Campus Level Planning Project for the 1976-77 School Year

Evaluator: Dorothy L. Alexander

Objective of the Project: The primary objective of the Campus Level Planning Project is to provide assistance to local schools in planning for the allocation and utilization of their educational resources. Participation in the project is voluntary. Approximately twenty schools can be assisted by the present project staff of two fulltime persons and three persons giving approximately one eighth (1/8) of their time to the project. The schools are accepted into the project on a first-come-first-served basis. Participating schools are expected to organize a management team comprised of selected members of the school's staff. The management team, assisted by a member of the project staff, is expected to utilize a planning and decision-making model, developed by the project staff, to assess the needs of the school, decide what is to be done about them, and to structure activities accordingly. (See Appendix for model)

Purpose of the Report: The purpose of this report is to provide management, and other interested persons, informtion about the progress made in assisting local schools in planning for the allocation and utilization of their educational resources. This information is expected to assist in deciding the direction of the project for the next school year.

Sample: Nineteen schools were accepted for participation in the project during the 1976-77 school year. As participation in the project necessitated the organization of a management team and the scheduling of time for planning activities, six schools withdrew before the end of the first quarter do to their inability to meet these requirements. Thus, thirteen schools were involved in the project this year. Among the participating schools were four K-3 schools (Fannie C. Harris, Urban Park, William Anderson and Elisha Pease), six K-6 schools (F. P. Caillet, Herbert Marcus, Preston Hollow, Obadiah Knight, Oran M. Roberts and Mark Twain), one 4-6 center (Rylie) one middle school (Alex Spence) and one high school (South Oak Cliff).

Each school organized a management team at the discretion of the school's principal. Although it was expected that the principal would be an integal part of the team, it was not a requirement. Thus, two management teams operated without the participation of the principal. In at least two other settings, the principals were only remotely involved. In schools comprised of K-6 grades there were two teams, one for K-3 and one for 4-6.

Methodology: Upon request from the principal, a member of the project staff visited the school to explain to the school's staff the purpose of the project and to illustrate the application of the planning and decision-making model. The principal and his/her staff were then given time (approximately two weeks) to decide if the school would participate in the project. If the school decided to participate in the project, a member of the project staff was assigned to assist the school in implementing the planning and decision-making model.

The first task of the project staff was to assist the principal in organizing the management team. This was accomplished by providing the principal information about the nature of the work of the management team and the need for a cooperative group. Upon selection of members for the team by the principal, a second presentation was made by the project staff to the team. The nature of this presentation was an explanation of the role and responsibilities of the team, and the establishment of a work schedule and record keeping system.

According to the established schedule, the project staff visited the schools and assisted the management teams in working through the planning model. The project staff submitted to the project evaluator a report of each visit with the management team. The report included the activities of the team during the visit, problems and/or potential problems encountered, plans for dealing with the problems and plans for the next visit. In addition to these reports, two interim and a final report were submitted by members of the project staff to the project evaluator. The purpose of these reports was to keep the project evaluator informed of how well the project was operating. The information provided in these reports has formed much of the basis for the present report.

Major Evaluative Questions and Results:

1. What are the general characteristics of the 1976-77 participating schools?

   Basic characteristics of participating schools varied with the exception of their being primarily elementary schools. There seems to be no relationship between basic characteristics of the school (size, sex, ethnic composition, etc.) and the decision to participate in the project. It might be said, however, that elementary schools seemed more receptive to the project than did middle schools, middle schools more than high schools. An intuitive conclusion would be that principals of higher grade level schools felt a limited need for the type of assistance offered through the project.

2. What are the general characteristics of the management team?

3. How was the management team selected?

   The management teams were generally comprised of five to fifteen members. These persons were usually grade level or department representatives who were selected by their collegues or appointed by the principal to serve on the management team. The choice of principal appointments varied from appointment of weak teachers to help them grow professionally to appointment of professionally strong teachers because of their perceived resourcefulness.

4. What strategies were used in identifying needs?

The strategy most frequently used in identifying academic needs was analyses of test data (ITBS, ITED, MRT and Test of Essential Skills in Reading). For an assessment of needs attending the general climate of the school, survey data were most frequently used. These methods seemed to have been chosen on the feasibility of their implementation. They were easy to implement.

5. What needs were identified?

Among the needs common to most schools were:

a. Competency in basic skill areas
b. Parental involvement
c. Improved utilization of Staff Development time
d. Reduction of student/pupil ratio
e. Establishment of K-3 Center
f. Improved Reporting System for Pupils' Achievement and
g. Coping with student mobility

6. How were priorities determined?

7. What need(s) was chosen to be addressed?

Priority among the needs delineated was established most frequently on the basis of preceived urgency. Competency in basic skill areas received top priority. The priority given this need can be understood in light of the proposed mandate for an end to social promotion.

8. What are the problems to be overcome in addressing the need(s)?

9. What opportunities or potential opportunities are available to respond to the need(s)?

The problems to be overcome in addressing the need for competency in basic skill areas include the establishment of criteria for competency and the development of measures thereof. Of course, this problem is expected to be resolved at the District level. Presently, competency in reading and measures thereof have been developed by the District. Consequently, as one might expect, progress in meeting needs in basic skill areas is proportional to the progress made by Central Administration in defining criteria for competency and developing measures of criteria.

10. Did the management team implement the planning model in arriving at the need(s) to be addressed? If no, why?

Generally speaking, the basic components of the planning and decision-making model (ORGANIZATION, INPUT, DECISION-MAKING, STRUCTURING PROGRAM) were followed. However, the systematic steps comprising the various components were not followed. The major factor in this departure was management teams' unwillingness to work through the sometimes tedious steps of the model. For example, the model suggests that a survey of total environment be made to identify problems and/or potential problems attending the school (Phase I Step I) Frequently, management teams seemed unwilling to do this as they felt that they wanted to develop a specific component of the school and thus, confine their planning to that component.

The model further suggests that once the needs have been identified components of the needs (causal factors) should then be identified. After this, a feasibility study should be conducted and alternative strategies to achieve objectives should be identified before program structuring is begun. These steps were rarely taken. Management teams seemed to view these steps as unnecessary and too time consuming. The tendency was to implement these steps if and only if problems developed in structuring a chosen program.

11. What problems were encountered in implementing the model? How were they overcome?

The major problem encountered in trying to implement the planning decision-making model was getting the teams to work through the steps of the model. As implied earlier, it was difficult to get members of the management teams to see the relevancy of a systematic procedure to needs identification, needs analysis and alternative solutions.

Another problem was the abstractness of the model when applied to the school as a system as opposed to specific components of the school (i.e., development of basic skill areas, allocation of discretionary funds or the establishment of a language laboratory). Data collected from both principals and management teams indicated that planning as suggested by the model is more feasible and potentially more effective when confined to problems within a specific component of the schools. This problem suggests a need for the project staff to emphasize and to demonstrate the adaptability of the model to sub-systems of the school as well as to the school as a total system. Perhaps this flexibility could also resolve the problem of the management teams' unwillingness to work through the various steps of the model as referenced above.

12. What is the management team's general attitude toward the use of the model? Toward planning in general?

Survey data indicated that most management teams felt positive toward the planning model. However, additional data provided by the project staff did not support this finding. The reluctancy of management teams to work through the model, as reported by the project staff, invalidates (to some extent) the finding.

The management teams' attitude toward planning in general seems positive as revealed by survey data. However, the general feelings among team members was that they could be most resourceful in program and instructional decision settings as opposed to policy and managerial decision settings. Principals seem to feel that the management teams could be most resourceful in instructional and policy decision settings.

13. What program was chosen to address the selected need(s)?

Planning activities seem to have been less program oriented this year as opposed to last year. Last year, schools involved in the project were given support money for developmental projects or programs. There was no support money offered this year. Consequently, it seems that planning at best was strategic in nature (concerned with control and integration of current operations). This planning was characterized by such outcomes as: (1) workshops, PTA presentations and home visits to involve parents in their children's education; (2) staff development involving interpretation and use of test data, trends in early childhood education, selection of instructional materials, and designing assessment instruments; (3) revision of student progress reporting system; (4) the establishment of goals and objectives for the school for next year.

14. What are the infusion plans for the chosen program?

Implications for the 1977-78 School Year: Our experiences with Campus Level Planning during the 1976-77 school year, many of which are not reflected in this report, have several implications for continuation of the project. Some of the major implications are:

1. Schools must have a good reason to initiate the planning process.
2. Schools must realize some benefit from the planning effort to sustain the effort.
3. The project staff must be flexible, yet systematic according to the model, in assisting schools in the technical aspects of planning.
4. The principal must be an integral part of the management team as final actions rest upon the decision of the principal.

5. The management team must be willing to work through the planning and decision-making model as evidenced by a statement of commitment from the principal.

6. Greater care must be taken in explaining what is involved in planning, according to steps suggested by the model, before the school decides to participate in the project.

7. Participating schools must decide upon a definite schedule for planning activities. The schedule may reflect the use of the Campus Level Planning staff as periodic consultants or as facilitators which would require more frequent contact.

The pilot phase of the Campus Level Planning Project (1975-76) resulted in five schools selecting programs for implementation during the 1976-77 school year. Our observation of these programs indicate that all five programs are in operation. Presently, the programs appear to be operating as trial programs within the schools. Of course, the nature of the program will dictate to a large extent its pervasiveness within the school. For example. the on line information system selected by Thomas Jefferson High School impacts more components of the school than does South Oak Cliff's reading program. Caillet's program of supplemental materials to address deficiencies indicated by ITBS scores impacts more components of the school than does Spence's ESL program and about the same as Rylie's Plus Ten program. The point to be made here is the nature of the program selected seems causally related to the degree of program impact on the total school, which in turn is related to the degree of program infusion.

Another observation is the disappearance of the management team as a viable group in all save one of the pilot schools. There is little evidence to suggest that the teams were expected to continue their activities beyond the 1975-76 school year.

The above observations would suggest at least two questions that need to be addressed in determining the future of Campus Level Planning: (1) Should Campus Level Planning be aimed at improving school management through the teaching of techniques for planning and decision-making, or could we better serve the schools as "trouble shooters" for management problems? (2) Should Campus Level Planning be program oriented? Relative to this last question, our observation of schools involved in the project during the 1976-77 school year indicates few programatic efforts resulting from this year's Campus Level Planning activities, yet the activities seem to have facilitated decision-making in many situations involving both present and future operations of the schools.

Additional Information:

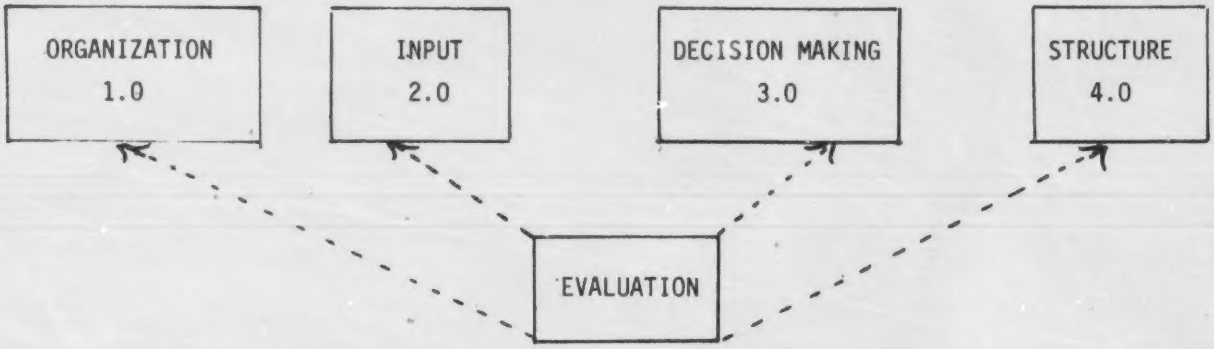
IE77-068-9-5 Progress Report on the Campus Level Planning Project for the 1976-77 School Year, 1977, Dorothy L. Alexander.

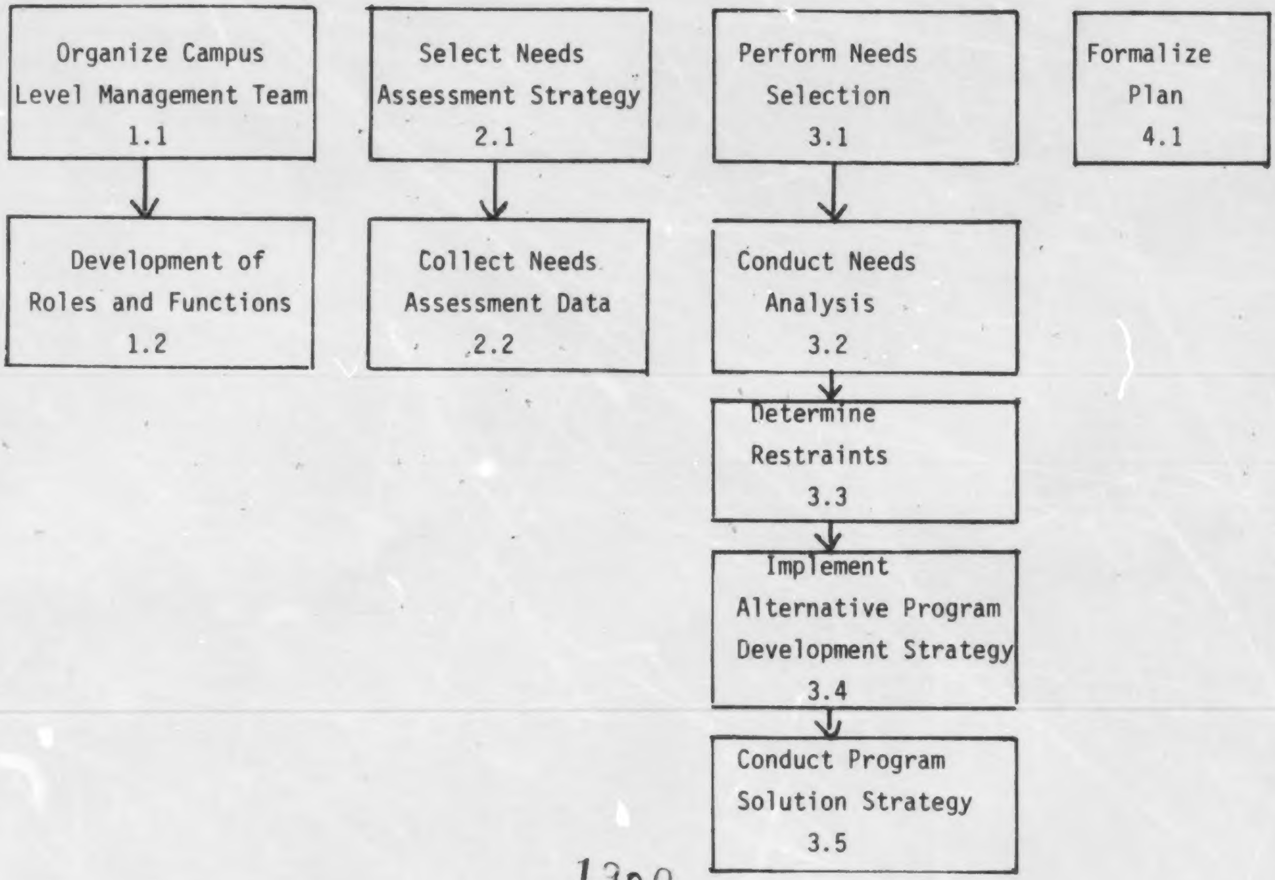
76-853 A Planning Model for School Based Decision Making, 1976, Thomas C. Holland, Joan Vogel, 75 pages.

74-310 Compus Level Planning Model, 1974, Frank Jackson, William Heeney, 41 pages.

APPENDIX

A PLANNING MODEL FOR SCHOOL BASED DECISION MAKING


ORGANIZATION
1.0
INPUT
2.0
DECISION MAKING
3.0
STRUCTURE
4.0
EVALUATION


Organize Campus Level Management Team
1.1
Development of Roles and Functions
1.2
Select Needs Assessment Strategy
2.1
Collect Needs Assessment Data
2.2
Perform Needs Selection
3.1
Conduct Needs Analysis
3.2
Determine Restraints
3.3
Implement Alternative Program Development Strategy
3.4
Conduct Program Solution Strategy
3.5
Formalize Plan
4.1

IE77-069-3-5

Abstract

Progress Report on the Early Childhood Education Program

Evaluator: Dorothy L. Alexander

Objectives of the Program: In an attempt to improve the District's educational program for kindergarten through third grade (K-3) as required by court order, the Early Childhood Education Program is aimed at transforming K-3 schools into K-3 Centers by 1980. The center concept takes into consideration the wide range of abilities, cultures, interests and developmental needs of young children ages five to eight and suggests an environment conducive to the accommodation of educational needs resulting from these differences. Whereas each center is expected to have unique characteristics reflective of the specific needs of the population it serves and the creative ideas of its staff, parents and community, each center is also expected to incorporate the following elements: (1) plans for implementing the DISD Baseline curriculum program, developed in conjunction with a parent advisory committee; (2) individualization of instruction; (3) an adult-pupil ratio of 1 to 10; (4) a staff development program consistent with the State Board of Education Plan; (5) effective partnership with community groups, businesses and other agencies serving young children; (6) efforts to maximize the involvement of parents in planning, reinforcing and complementing their children's learning; and (7) administration of the center at the local level.

Purpose of the Report: The purpose of this report is to provide the administration and other interested persons information about the progress in developing early childhood education. This information is expected to be useful, not only in understanding program activities, but also in monitoring the program.

Evaluation Perspective: Originally, an evaluation focusing primarily upon program intents as opposed to program activities, was planned. However, changing patterns of program implementation suggested that the planned approach to evaluating the program would neither provide the information needed by program staff to monitor the program, nor provide the various audiences for progress reports information needed to understand the strengths and weaknesses of program activities. A decision was made to take what has been dubbed by Stake[a] a "Responsive Evaluation" approach, at least during the first year of program operation. According to Stake, responsive evaluation is what people do naturally in evaluating things. They observe and react.

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[a] Stake, Robert E. "Responsive Evaluation." Unpublished paper presented at the Educational Program Management Center, The Ohio State University, December 5, 1972.

Based on the pattern of program development, the focus of observation was upon three levels of program activities: (1) Program management, (2) Prototypic Centers, and (3) Non-prototypic K-3 schools. Specific questions investigated at each of these levels are disclosed in Table 1. The row headings of the matrix are the program levels while the column headings refer to the various stages of program development. The entries in the cells of the matrix are the specific questions investigated.

Data Collection and Analysis: Three primary methods of data collecting were used in this study: (1) unstructured interviews with key persons involved in the program, (2) review of documents related to the program, and (3) on-site visits to prototypic centers. A spot check of non-prototypic schools was made to determine what actions non-prototypic schools are taking to implement the program. A convenient sample of nine K-3 schools were used in obtaining this information. A checklist of Court-ordered requirements facilitated the collection of data.

Descriptive analysis is used in reporting the findings of this study.

Major Evaluative Questions and Findings:

1. What is the overall plan for transforming K-3 schools into K-3 Centers?

The general plan was to establish at least two prototypic centers within each sub-district during the 1976-77 school year. Additional centers will be established when schools present a written plan of action and evidence that specific policies and guidelines are being implemented. Additional centers are to be added at a rate that will assure transformation of all DISD K-3 schools to K-3 centers by 1980.

2. How sound is the plan under conditions of implementation?

Whereas the plan seems logical, the strategy for implementation needs improvement. What has resulted are thirteen schools designated as prototypic centers when only about five of them would approach requirements for such designation, according to the policies and guidelines for center status. The program staff seems to have recognized the problems created by this need for more planning and has decided to focus efforts on the development of the thirteen schools before additional schools are selected.

3. What problems attend the program?

The major problem attending program implementation is the lack of system-wide plans for transforming K-3 schools into K-3 centers. Assumptions have been made by the program staff that every K-3 principal is aware of the Court Order affecting K-3 schools, and that the principals and their staff, on their own initiative, will develop and implement a plan of action in compliance with the Court Order. The results from this study of both prototypic

Table 1

Questions Investigated in the Study

	PROCESS	PRODUCT
PROGRAM MANAGEMENT	What is the actual design for transforming K-3 schools into K-3 centers? How sound is the plan under conditions of implementation? What problems attend the program? What changes are needed?	What evidence can be found that program objectives are being met?
PROTOTYPIC CENTERS	Are prototypic centers implementing their proposed plan of action? To what extent do the centers comply with the Court Order? What are the characteristics of the Prototypic Centers?	What differences in early childhood education can be attributed to the center concept?
NON-PROTOTYPIC SCHOOLS	What evidence is there that non-prototypic schools are taking steps toward transforming into K-3 centers?	

and non-prototypic schools did not support these assumptions. Some schools felt that the Court Order did not pertain to them and in others no evidence of implementation could be found. The imperativeness of all K-3 schools to take steps toward becoming K-3 centers has not been communicated, partly because of the lack of a system-wide plan of action which would specifically indicate to all K-3 schools what must be done, how it must be done and when it must be done.

4. What evidence can be found that the program objectives are being met?

The selection of thirteen schools to become prototypic centers is one indication that program objectives are being met. Another indication is the awareness of more K-3 schools of the imperativeness of the transformation. This awareness resulted from a series of workshops held during the spring of the present school year, in which K-3 teachers from each of the five sub-districts were taken step by step through the stages of development that each K-3 school is expected to take in becoming a K-3 center.

5. What differences in Early Childhood Education can be attributed to the Center concept?

While it is too early to substantiate a cause-effect relationship, certain changes can be observed. Among these are: (1) greater awareness of the need for home, school and community to be involved in the education of young children, (2) greater awareness of the developmental needs of young children, (3) greater emphasis on individual differences in the acquisition of skills in fulfillment of these needs, and (4) improved physical environment characterized by child-centered structures, colors and varied learning opportunities.

6. To what extent do the prototypic centers comply with the Court Order?

Eight of the selected schools for prototypic center status are Title I schools. By their Title I requirements, most of these schools are better than fifty percent in compliance with the LETTER of the Court Order. However, the presence of specific elements delineated in the Court Order does not fulfill the SPIRIT of the Court Order. The best examples of compliance with both the spirit and the letter of the Court Order can be observed in five (Withers, Navarro, Darrell, Seguin and Kramer) of the prototypic centers; two of which are non-Title I schools.

7. Are prototypic centers implementing their proposed plan of action?

The data needed to answer this question are incomplete at this time. Observations made during site visits to the prototypic centers indicated that the better written plans (in terms of soundness given the local situation) were in operation at the time of the school's application for center status, a condition which gave the school an advantage in applying for center status.

At least three schools presented plans contingent upon their receiving the development funds promised prototypic centers. In these cases, there was no indication that the plan was being implemented. In still other cases it appears that the plan of action was not taken seriously. Whereas the overall plan or specific program proposed might have been logical, the strategy for implementation was either undetermined or weak in terms of achieving the intended goals and objectives.

9. **What evidence is there that non-prototypic schools are taking steps toward transforming into K-3 centers?**

A spot check of nine K-3 schools involved in the Campus Level Planning Program did not indicate that the transformation of K-3 schools to K-3 centers is considered in their planning. The issue was raised with the management team of each school but it failed to be considered a priority item. No further search for evidence was made.

Conclusions:

There are serious managerial problems attending the program. The first of these is that no one was found to be officially designated as director of the program. Without someone to direct the total program, certain components of the program are mistaken to be the total program. For example, the emphasis given the reading program was frequently equated with the Early Childhood Education Program, prior to the series of staff development workshops held for K-3 schools this spring. Despite the development and dissemenation of *Sights, Sounds and Symbols*, the K-3 handbook for the development of Early Childhood Education, there is still a great deal of uncertainty on the part of local schools about the transformation of K-3 schools into K-3 centers.

Related to the problem of no one to direct the development of early childhood education is the problem of local schools' failure to implement policies delineated to guide program development. These policies were not disseminated by a policy-making body (although endorsed by the General Superintendent) and have virtually been ignored by K-3 schools, save those applying for center status. Directives from program staff to local schools, such as the request for a plan from each K-3 school, have also been ignored by many schools within certain sub-districts.

Additional Information:

IE77-069-6-5 Progress Report on the Early Childhood Education Program, 1977, Dorothy L. Alexander.

Abstract

Input Evaluation for Elementary Reading

Evaluator: Melinda Knecht

Objectives of the Project: The basic objective of this project is to present information which can be useful in planning and decision-making related to elementary reading. More specifically, it is intended to serve as a source document for Dallas Independent School District (DISD) personnel who are interested in alternative approaches for teaching reading at the elementary level. Discussion of elementary reading in this report centers around six sections: (a) background, (b) review of the literature, (c) examination of other developmental projects, (d) proposed selection criteria, and (e) selected alternatives.

Purpose of the Evaluation: Close scrutiny of DISD students revealed that many elementary students read at achievement levels far below their grade levels. Thus, an integrated, systematic effort, designated as Input Evaluation, was initiated to identify, investigate, and select alternative approaches which exhibited promise of minimizing or eliminating specific constraints or problems related to elementary reading. As one of the first steps, a large amount of information concerning elementary reading was collected from two basic sources: (a) review of the current literature, and (b) correspondence with successful elementary projects. This information was summarized and synthesized to draw conclusions and identify prevalent trends. To aid selection of specific approaches, programs, or materials, a set of selection criteria was developed to be used in facilitating the screening process. Next, guidelines for exploratory elementary reading projects were delineated.

Sample: Data for this report were sampled from two basic sources: (a) current literature, and (b) other elementary reading projects. For the literature review, criteria used to select studies for inclusion were that the studies be very current (i.e., not more than three or four years old) and that they contain useful information. Elementary reading projects were contacted if they had achieved some degree of success.

Evaluation Design: Since this study was basically a survey or descriptive study, an experimental design was not used. The study consisted of a series of case studies with a synthesis of the information obtained.

To obtain information for the literature review, and extensive search was conducted which included the use of local libraries and the Educational Resources Information Center (ERIC). Once appropriate titles were identified approximately seventy studies were reviewed and summarized.

Location of "successful" developmental elementary reading projects was accomplished through the use of ERIC, Office of Education review boards, and reports which summarized evaluation results of federally funded projects. Once identified, a letter to the projects requesting objectives, costs, and evaluative information usually brought good results.

Analysis of the data consisted of summarizing and synthesizing the information to draw conclusions, identify prevalent trends, and develop skeletal guidelines for alternative approaches to teaching elementary reading. The major questions of interest were:

1. What is the status quo for elementary reading and elementary reading instruction?
2. What trends and generalizations about elementary reading can be identified in the current literature?
3. What trends and generalizations about elementary reading can be synthesized from information about existing developmental projects?
4. What schemes can be used to select elementary reading programs so as to maximize the probability of successful implementation?
5. What approaches or programs have a good probability of successful implementation?

Evaluation Results:

From approximately 70 studies and reports which were reviewed, attempts were made to bring together relevant generalizations, conclusions, and implications with respect to practices and trends in reading on the elementary school level. In summary these are:

1. Although there is an increasing trend toward open-area schools, the majority of elementary reading programs are conducted in self-contained classrooms.
2. The basal reader is the most common instructional tool in elementary reading classes. It is, however, combined with a wide variety of supplemental materials.
3. Many schools now have at least the part-time services of a reading specialist. Many school districts employ specialists who serve several schools and act as consultants for all types of reading problems.
4. Classroom teachers now have greater responsibility in the selection of reading materials. Many schools have adopted the committee system whereby teachers have an opportunity to provide ideas and opinions to a selection committee which includes representatives from both the teaching staff and the administration.

5. Many classroom teachers admit that they need additional training in some of the basic teaching tasks or classroom management skills, and recommend courses in language arts and reading for all prospective teachers.

6. Uninterrupted sustained silent reading (USSR) is gaining in popularity as an approach to teaching reading. This technique provides students with an uninterrupted period of time in which th read material of their own choice.

7. Television is used as an instructional tool in more than one-third of American schools. There seems to be no doubt that children can learn from television; however, some authorities are questioning what the children are learning.

8. Peer tutoring remains a popular technique for increasing interest in reading.

9. Although there is no proven explanation; the majority of students who have reading difficulties in American schools are boys.

10. There is growing sympathy for the feeling that emphasis on reading programs has gone overboard; that it takes more teacher enthusiasm rather than more money to increase reading skills.

11. Some of the best teachers of reading are those who recognize the importance of reading in the development of young people, and who are able to convey that conviction through their enthusiasm and creative teaching methods.

Forty-four developmental programs were reviewed in this investigation. Based on this review, an attempt was made to bring together relevant generalizations, conclusions, and implications with respect to practices and trends in reading on the elementary school level. In summary these are:

1. The majority of the projects reviewed were developed to aid the student who is reading below grade level; that is, they are remedial or compensatory programs. However, there is a relatively large proportion of mainstream programs available which are designed to supplement the basal reader and appeal to students of all ability levels.

2. Some of the common threads which link a large number of the reviewed projects include the following: (a) individualized instruction; (b) some method of diagnosing each student's needs, prescribing the appropriate treatment, and measuring the student's progress; (c) additional training for teachers; and (d) the use of volunteers and tutors.

3. A limited cost analysis for this report was based upon three cost-related factors: (a) the degree to which additional facilities or staff were required for implementation, (b) the amount of existing, local materials that could be used, and (c) the length and location of training. Thus, available cost-related information suggested that five of the programs could be implemented in DISD for less than many of the others. These five programs are listed below:

    - Alphaphonics Reading Readiness Training Program; San Mateo, California
    - Help One Student to Succeed (HOSTS); Vancouver, Washington
    - Individualized Reading Instruction: Diagnosis, Prescription, Evaluation; Weehawken, New Jersey
    - Pupils Advancing in Learning (PAL); Denver, Colorado
    - Systems Directed Reading (SDR); Elkhart, Indiana

Selection criteria for assessing instructional strategies can be based upon the following specific considerations: (a) objectives of the unit--those of the producer as well as yours, (b) relevance and validity of the unit's content, (c) compliance of unit with principles of human growth and development, (d) time and space (organizational) considerations, (e) personnel factors, (f) community factors, (g) cost analysis of the unit, (h) instructional and curricular factors, (i) evaluative procedures, (j) legality, (k) balance among components, and (l) implementation.

Two general organizational approaches which seem to have a good chance of successful implementation include a total program approach and a developmental approach. The total program approach provides for the close integration of reading and study with the teaching of the various content areas. The developmental program approach includes reading activities for all ability levels. Such a program consists of at least four phases--clinical, remedial, developmental, and enrichment. In terms of implementation, each of these two general approaches should be implemented in one or two volunteer elementary schools on a pilot basis.

Additional Information:

IE77-070-7-1 Review of The Literature: Elementary Reading, 1977, Melinda Knecht, 24 pages.

IE77-070-5-1 An Overview of Successful Elementary Reading Programs In Other School Districts, 1977, Melinda Knecht, 97 pages.

Abstract

Review of the Literature:
Moral Education

Evaluator: Charles F. Allan

Objectives of the Program: The primary purpose of this program was to collect current information pertaining to moral education in America, and to present this information in a comprehensive, in-depth survey. This topic included information carried under a variety of titles: character development, ethical instruction, values clarification, citizenship training, and others. An attempt was made to gather the separate strands into a single category called "moral education."

Purpose of the Review: The main purpose for performing a review of the literature was to provide decision-making information for dissemination to those persons responsible for instructional improvement. Included in the review were such things as the history of moral education in America, the major theoretical approaches to the subject and their practical application, discussion of a sample of experimental programs, suggested criteria for judging moral education programs, and certain recommendations regarding moral education programs.

Review Design: This review was divided into three main parts. The first part dealt with the background and history of moral education in America. Consideration was given to the influence of the church, of psychology and sociology/anthropology, and of the "new social studies." The second part dealt with the various theories of moral education, centering the discussion on five types of programs: (1) inculcation, (2) analysis, (3) clarification, (4) moral development, and (5) action learning. The third part of the review dealt with general conclusions and recommendations based on the content of the review.

Review Conclusions:

1. One way to conceptualize the tailoring of program structure to student age might be as follows. For younger (primary) students the program would rely on affective persuasion, inculcation of values, reinforcement of good habits by behaviorist techniques, and a focus on issues and rules of immediate personal concern to students. For intermediate and secondary-level students, the program gradually would shift to more logical means of persuasion;

free inquiry into values; a focus on less personal and more public issues — of community, national and eventually global concern; increasingly abstract principles; and more action learning (such as community projects, peer counseling, student court and so on).

2. More research should be devoted to behavior variables under situational stress. Classroom moral judgement may yield a sterile product without certain personality complements. None of the programs here discussed have as their primary objective the enhancement of courage, will or generosity, traits which one intuitively assumes would play a major role in moral behavior.

3. Research suggests that modeling may have more influence on youthful behavior than lectures or discussions. Are there ways for the schools to increase the modeling influence of teachers and administrators?

4. The programs reviewed here select their important values in various ways — arbitrarily, in some cases; from Ben Franklin; according to principles of universality; and so on. Methods of obtaining parental and community input should be explored. Also, greater use might be made of such approved sources of values as the U.S. Constitution and Bill of Rights and the time-tested values of the great world religions and classical philosophy.

5. Costs associated with teacher training for moral education should be accorded far greater importance than the cost of materials. The more a program relies on rational, free inquiry, the more crucial are teacher skills in objectivity, principled thinking and leading group discussions. Three-day seminars are not enough. And, in general, moral education teachers should have a thorough grounding in psychology and philosophy.

Additional Information:

IE77-070-8-3 Review of the Literature: Moral Education, 1977, Charles F. Allan, Melinda Knecht.

Abstract

Needs Assessment: K-12 Urban Career Education Infusion Project

Evaluators: William T. Denton
Wil Kleck

Objectives of the Program: The K-12 Urban Career Education Infusion Project (Project) is focused in 14 schools located in the East Oak Cliff Subdistrict. It is a two phase contractual commitment the Dallas Independent School District has entered into with the United States Office of Education. The first phase of the Project, which was conducted from August 15, 1976 through August 14, 1977, was devoted to planning and preparing for the effort to be implemented during the second phase of the Project.

The primary purpose of the Project is to attempt to demonstrate that through infusing career education into the existing curriculum, trained teachers can influence the academic achievement of students. The Project proposes to address problems attendant with low student motivation thought to be brought about by the curriculas' lack of relevance. By systematically introducing students, from kindergarten through grade 12, to the world of work; the curricula should be more relevant.

The Project objectives call for the planning of career education oriented activities that can be infused into the existing curriculum with a minimum of disruption. Thus, making existing courses in grades K through 12 more relevant to the "world of work." Specific activities of this first year of the Project include: conduct a comprehensive needs assessment, implement inservice training for 25 percent of the school staff, adapt, adopt and develop curriculum modules to be infused into the existing curricula, increase community awareness and involvement in the schools, and develop a comprehensive evaluation design for the second phase of the Project.

The purpose of this paper is to describe how the needs assessment was conducted and discuss the results.

Purpose of the Evaluation: The purpose of this needs assessment was to determine specific areas in career education that needed to be addressed by the Project and the amount of support that community members have for the basic tenents of career education. The plan is that in Phase two of the Project efforts will be directed at those areas of career education with maximum need so as to effect positive results.

Sample: For the student population in grades 7-12, a ten percent random sample stratified by grade within each school was administered a needs assessment instrument. In grades K-6 teachers at all participating schools were asked to respond to an instrument that asked how important the career education concepts were and how many of their first period students had mastered each of the concepts. All educators in each of the 14 participating schools were included in the needs assessment survey. Groups of community members that were meeting together such as P.T.A's, service clubs, church groups, etc., were sampled for the community survey.

Evaluation Design: In early discussions with the Project staff, it was decided that the work already completed by the Partners in Career Education project, in which the District was a participant, would be the foundation for the needs assessment. The Partners in Career Education (PCE) project had identified 177 Basic Learner Outcomes in career education and had categorized them by subject areas across grade levels K-through 12. These Basic Learner Outcomes were divided into the following nine Learner Outcome Categories:

Career Planning and Decision Making
Career and Occupational Information
Job Acquisition and Retention
Attitudes and Appreciation for Career Success
Skills in Human Relationships for Careers
Self-Investigation and Evaluation for Career Success
Personal/Work/Societal Responsibilities
Economic Factors Influencing Career Opportunity
Education/Career Opportunity Relationships

Instruments were developed for each of the subpopulations sampled. Each instrument was designed to assess either the Learner Outcome Categories or a sample of Basic Learner Outcomes from each category. From the results obtained through administering each instrument, career education needs were prioritized in terms of the Basic Learner Outcomes.

Evaluation Results: From the community survey it was indicated that there was a strong support for the basic tenents of career education. There was, however, a lack of agreement as to which Learner Outcome Category was first in terms of need.

Educators tended to agree that students were not currently receiving an adequate emphasis in the area of career education. They were also highly supportive of the basic tenents of career education.

In grades 9-12 assessment of student knowledge of career education suggested that student knowledge increased from grade 9 to grade 12. However, even in grade 12, student knowledge was in an acceptable range in only three of nine categories. The data seem to indicate that senior high students know the least in terms of the nine Learner Outcome Categories about:

Economic Factors Influencing Career Opportunity
Career and Occupational Information
Skills in Human Relationships for Careers

The results of the Middle School Student Survey were similar to those of the senior high survey. There was a general trend of growth in knowledge from grade 7 to grade 8. Except for two categories, knowledge was below a desireable level. The most need for additional career education knowledge was demonstrated in the following categories:

Career Planning and Decision Making
Economic Factors Influencing Career Opportunity
Skills in Human Relationships for Careers

In grades K-6 teachers rated the following ten Basic Learner Outcomes as being most in need of attention:

Elementary School Survey
Ten Most Important Items

Ranking	Item
1	Realizes that listening is essential to learning
2	Recognizes that a person must work to receive wages
3	Respects authority
4	Understands when to talk and when to listen
5	Understands the importance of completing a task
6	Is able to state certain consequences of not obeying the law
7	Is able to work alone, and/or with others
8	Has good grooming habits
9	Understands the effects of not working
10	Is concerned with doing person's best on a job

Additional Information:

SE77-049-9-7 Needs Assessment: K-12 Urban Career Education Infusion Project, 1977, William T. Denton, Wil Kleck.

SE77-049-3-7

Abstract

Final Evaluation: K-12 Urban Career Education Infusion Project

Evaluators: William T. Denton
Wil Kleck

Objectives of the Program: The K-12 Urban Career Education Infusion Project (Project) is focused in 14 schools located in the East Oak Cliff Subdistrict. It is a two phase contractual commitment the Dallas Independent School District has entered into with the United States Office of Education. The first phase of the Project, which was conducted from August 15, 1976 through August 14, 1977, was devoted to planning and preparing for the effort to be implemented during the second phase of the Project.

The primary purpose of the Project is to attempt to demonstrate that through infusing career education into the existing curriculum, trained teachers can influence the academic achievement of students. The Project proposes to address problems attendant with low student motivation thought to be brought about by the curriculas' lack of relevance. By systematically introducing students, from kindergarten through grade 12, to the world of work; the curricula should be more relevant.

The Project objectives call for the planning of career education oriented activities that can be infused into the existing curriculum with a minimum of disruption. Thus, making existing courses in grades K through 12 more relevant to the "world of work." Specific activities of this first year of the Project include: conduct a comprehensive needs assessment, implement inservice training for 25 percent of the school staff, adapt, adopt and develop curriculum modules to be infused into the existing curricula, increase community awareness and involvement in the schools, and develop a comprehensive evaluation design for the second phase of the Project.

Purpose of the Evaluation: This evaluation was designed to fulfill several purposes: (1) to provide management with timely information for restructuring decisions, (2) to provide top level administration and board members with effectiveness information, and (3) to meet the contractual agreements with the United States Office of Education.

Sample: For the needs assessment portion of this evaluation, a 10% random sample stratified by grade was used to obtain data from students in grades 7-12. To obtain information relative to student needs in grades K-6, all elementary teachers were surveyed. All educators in the 14 participating schools were surveyed for their input. Intact community groups (church groups, Parent Teacher Associations, Parent Advisory Committees, service clubs, etc.) were surveyed to obtain their opinions about the relevant need for career education.

All participants in the 15 staff development workshops (approximately 250) were included in the evaluation of the staff development effort.

Project staff members provided the necessary information for the evaluation of the curriculum identification and/or development effort and the development of implementation procedures.

Principals in the 14 participating schools were surveyed for their input as to their perceptions of the Project.

Evaluation Design: To focus the evaluation effort, seven major questions were formulated.

1. Were each of the components of the Project implemented as designed?
2. What were the top priority career education needs identified through the needs assessment?
3. Was the staff development training adequate?
4. What was the general attitude of community members, and educators toward career education?
5. What were the general characteristics of persons (educators, parents, and business persons) who participated in the Project and what was their involvement?
6. Were the curriculum modules appropriate for the Project?
7. Were key decisions in the staff development effort, program design for Phase II, community involvement plan and Phase II evaluation design logical given the needs assessment data?

Information pertinent to each of these questions were gathered and will be discussed in the Evaluation Results section.

Evaluation Results: To facilitate the reader's understanding of the findings of this evaluation, each question listed above will be repeated and the information pertaining to that question will immediately follow it.

1. *Were each of the components of the Project implemented as designed?*

The needs assessment was conceptualized, instruments were developed and pilot tested, surveys of community members, educators, and students were completed; and information was analyzed and reported to Project personnel by the end of February. This was two months in advance of the contract deliverable date, but just in time for use in the staff development effort.

Participating staff (teachers, counselors, aides) were identified from each participating school. This amounted to about 25% of the total staff in these schools. These participants were trained in the general area of career education, curriculum module writing, use of community resources, and infusion practices. This staff development took place as planned from March 15 through June 8.

The Project staff initiated a continuing effort to identify existing curricular materials that might be used in the Project. This includes free and inexpensive materials that they are identifying so that teachers can use them. Although it is doubtful that the curriculum identification effort has been exhaustive, it is still continuing. To supplement curricular materials that have been identified, the participating teachers have been trained to write their own curriculum modules for infusing career education activities into the existing curriculum. It is estimated that about 75% of the teachers have sufficient skill in module writing to meet their needs during Phase II of the Project.

Community involvement was gained through the organization of Parent Advisory Committees at each school, presentations at business, church and service organizations, formulation of a business action committee consisting of key members from local businesses and solicitation of support from industry and businesses. Although a great deal has been done in this area, more direct participation from businesses and industry in the form of personnel services, materials and work opportunities is still needed.

2. *What were the top priority career education needs identified through the needs assessment?*

In early discussions with the Project staff, it was decided that the work already completed by the Partners in Career Education project, in which the District was a participant, would be the foundation for the needs assessment. The Partners in Career Education (PCE) project had identified 177 Basic Learner Outcomes in career education and had categorized them by subject areas across grade levels K-through 12. These Basic Learner Outcomes were divided into the following nine Learner Outcome Categories:

Career Planning and Decision Making
Career and Occupational Information
Job Acquisition and Retention
Attitudes and Appreciation for Career Success
Skills in Human Relationships for Careers
Self-Investigation and Evaluation for Career Success
Personal/Work/Societal Responsibilities
Economic Factors Influencing Career Opportunity
Education/Career Opportunity Relationships

Instruments were developed for each of the subpopulations sampled. Each instrument was designed to assess either the Learner Outcome Categories or a sample of Basic Learner Outcomes from each category. From the results obtained through administering each instrument, career education needs were prioritized in terms of the Basic Learner Outcomes.

From the community survey it was indicated that there was a strong support for the basic tenents of career education. There was, however, a lack of agreement as to which Learner Outcome Category was first in terms of need.

Educators tended to agree that students were not currently receiving an adequate emphasis in the area of career education. They were also highly supportive of the basic tenents of career education.

In grades 9-12 assessment of student knowledge of career education suggested that student knowledge increased from grade 9 to grade 12. However, even in grade 12, student knowledge was in an acceptable range in only three of nine categories. The data seem to indicate that senior high students know the least in terms of the nine Learner Outcome Categories about:

Economic Factors Influencing Career Opportunity
Career and Occupational Information
Skills in Human Relationships for Careers

The results of the Middle School Student Survey were similar to those of the senior high survey. There was a general trend of growth in knowledge from grade 7 to grade 8. Except for two categories, knowledge was below desireable level. The most need for additional career education knowledge was demonstrated in the following categories:

Career Planning and Decision Making
Economic Factors Influencing Career Opportunity
Skills in Human Relationships for Careers

In grades K-6 teachers rated the following ten Basic Learner Outcomes as being most in need of attention:

1. Realizes that listening is essential to learning
2. Recognizes that a person must work to receive wages
3. Respects authority
4. Understands when to talk and when to listen
5. Understands the importance of completing a task
6. Is able to state certain consequences of not obeying the law
7. Is able to work alone, and/or with others
8. Has good grooming habits
9. Understands the effects of not working
10. Is concerned with doing person's best on a job

3. Was the staff development training adequate?

In fulfillment of the Staff Development component of Phase I activities, the project staff conducted 15 training sessions in which 239 participants learned about the field of career education, the infusion process, the writing of infusion process, the writing of infused curriculum modules, and the selection and use of community resources. This endeavor combined the efforts of the project staff, community resource persons, consultants and the Department of Research, Evaluation and Information Systems in the completion of the task. The sessions were conducted over a four month period (March-June) with each session lasting four hours. Teachers and counselors were paid six dollars for their time and aides three dollars. All staff development was conducted after school hours and on Saturdays. The activities of each session were planned around a specific goal for that session. The rationale for that goal was anchored in the results of the needs assessment.

In results of the evaluation of the Staff Development, attendance rates were found to have been consistently high throughout the sessions confirming further the satisfaction reported by the participants in regard to the administration of the training sessions. Other conclusions drawn from the evaluation (Kleck, 1977) were that "participants were sufficiently exposed to the field of career education, need more experience in writing usable, infused curriculum modules in career education, know how to identify and use community resources as a result of the training sessions, and were sold on the concept of career education as a means of making the classwork more relevant to students."

4. What was the general attitude of community members and educators toward career education?

As was stated earlier, see Question 2, both the community and the educators gave strong support to the basic tenents of career education. There was, however, some disagreement as to what specific area of career education should receive highest priority.

5. What were the general characteristics of persons (educators, parents, and business persons) who participated in the Project and what was their involvement?

Twenty five percent of the existing staff in each of the 14 participating schools volunteered to become involved in the Project. This resulted in teachers from all academic areas, non-academic areas, counselors and aides being represented among the participants. Because the computer data base for participants is only about 85% complete at this time, no further description of the participants will be provided. The remaining information needed to complete the data base will be collected on August 16.

Advisory committees were formed at each school. Through monthly meetings this brought about the direct involvement of representative of the community including church groups, business persons, parents, and labor representatives. One general advisory committee was formed to include a representative from each of the local committees and additional members from the community at large. Currently this committee consists of 36 members. Two other committees have been formed to facilitate the community involvement. These were the big business and the higher education committees. Both of these committees meet every two months.

Although a great deal has already been done to obtain community participation the staff is currently increasing their efforts to get further commitment from the business community.

6. Were the curriculum modules appropriate for the Project?

To assure that the curriculum modules would be appropriate, teachers were instructed to write their own. Teachers were to select concepts from their teaching area which could be benefitted by infusing career education activities. They were further guided to select ideas that corresponded to the District's Baseline curriculum. Each teacher was required to complete two modules. As might be expected, the quality of the modules varied greatly but could generally be judged as acceptable. To improve on those modules needing it, a team of five teacher-participants (who had each written excellent modules) was hired on a part-time basis during the summer to revise some modules. These revised modules, along with the original group of modules not needing revision, have been printed to be distributed to other teachers.

7. Were key decisions in the staff development effort, program design for Phase II, community involvement plan and Phase II evaluation design logical given the needs assessment data?

The staff development effort certainly reflected input from the needs assessment findings. Because the program for Phase II of the project was designed to focus on the identified learner outcomes of priority need and the evaluation design is keyed to the Phase II program design, then it seems reasonable to conclude that the decisions were based upon needs assessment data.

Additional Information:

SE77-049-8-7 Final Evaluation Report, 1977, William T. Denton.

SE77-049-9-7 Final Evaluation Report, 1977, William T. Denton, Wil Kleck.

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ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77

VOLUME IV — PROGRAM EVALUATION

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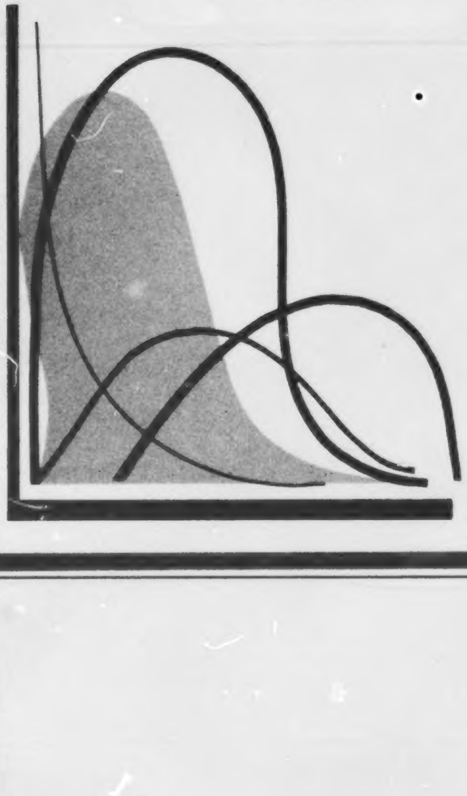

DEPARTMENT OF RESEARCH, EVALUATION AND INFORMATION SYSTEMS

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dallas independent school district

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Dallas Independent School District
Dr. Nolan Estes, General Superintendent

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Associate Superintendent

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Dr. William J. Webster
Deputy Associate Superintendent

ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77
VOLUME IV
PROGRAM EVALUATION

The majority of reports abstracted in this document were completed by the District's Research and Evaluation Branch of the Department of Research, Evaluation, and Information Systems during the 1976-77 school year and were presented through the Educational Program and Evaluation Committee to the Board of Education. Several studies were completed in previous years; but, because they affect significant decisions, they too are abstracted in this document.

Approved report of the Department of Research,
Evaluation, and Information Systems

William J. Webster
William J. Webster
Deputy Associate Superintendent
Research, Evaluation, and Information Systems

November, 1977

Dallas, Texas

Abstract

Evaluation of the Second Year of the Lincoln High School Renewal Project, 1976-77

Evaluator: R. A. Zepeda

Objectives of the Program: The Lincoln High School Renewal Project (LHSRP) is a product of the Dallas independent School District's commitment to upgrade the skills of educationally deprived students in the South Dallas area. The facilities and equipment at Lincoln High School (LHS) were to be modernized resulting in substantial, long-lasting improvements. The various aspects of the project were intended to meet the particular abilities and needs of Lincoln High School students and similar situations in other parts of the District. The LHSRP was meant to serve the people of the South Dallas community with educational facilities and programs that will alleviate social and economic inequities endured by many inner-city residents. The project was also designed to increase student interest and achievement and to foster more favorable student/community attitudes toward school and to encourage attitudes of self-pride and self-worth in these groups.

Purpose of the Evaluation. The evaluation of the LHSRP was implemented to delineate, obtain and provide useful information for judging decision alternatives about the educational program at LHS. To accomplish this, the on-site Research, Evaluation, and Information Systems (R&E) staff used the Context, Input, Process, Product (CIPP) model developed by Stufflebeam and others. The acronym stands for four types of evaluation. Context evaluation included obtaining and reporting pertinent information relative to the student and instructor populations at Lincoln High School and documenting the existing environment at each project cycle. Input evaluation was used to collect relevant information to aid in making planning decisions about the project. Process evaluation provided periodic feedback to project managers and other decision-makers who have the responsibility for the continuous control and refinement of implementation plans and procedures. Activities monitored at Lincoln included implementation of the staff development programs and the development of pluralistic curriculum. Product evaluation was used to define and measure objectives and to compare these measurements with predetermined standards. R&E collected data to assess the performance of students as well as the project staff with both commercially available tests such as the Iowa Tests of Educational Development (ITED) and locally developed instruments.

Sample: The evaluation of the LHSRP was concerned with three groups: the students, the staff, and the community. For the student needs assessment, survey about a new Lincoln High School, and ITED the entire student

population was polled. For the assessment of student proficiency in functional areas, using the Everyday Skills Tests (EST) in reading and mathematics, the twelfth grade was tested. For the staff needs assessment, survey on a new high school, and year-end assessment of the renewal project the entire staff assigned to Lincoln High School with the exception of R&E was polled. Staff development instruments were administered to all staff members with instructional responsibilities. The community was surveyed about the construction of a new Lincoln High School and about Continuing Education. A random sample of 382 parents was used to represent the community.

Evaluation Design: The evaluation of the second year of the LHSRP was based on acquiring sufficient information to answer the following questions:

1. Was student involvement in all aspects of school life at Lincoln High School increased by the renewal project during 1976-77?
2. Was community involvement in all aspects of school life at Lincoln High School increased by the renewal project during 1976-77?
3. Was student academic achievement increased by the renewal project during 1976-77?
4. Were staff knowledge, perceptions, and involvement in all aspects of school life changed by professional development activities at Lincoln High School during 1976-77?
5. What goals were set for culturally-pluralistic curriculum development at Lincoln High School during 1976-77 and to what extent were those goals achieved?
6. What physical improvements to the interior and exterior of the building and to the grounds of Lincoln High School were accomplished during 1976-77?
7. Were renewal efforts documented during the second year of the project term of the Lincoln High School Renewal Project?

Evaluation Results:

1. Table 1 below shows that the number of official LHS organizations decreased from 1975-76 to 1976-77. This is because several organizations that were sponsored by the school during 1975-76 were those that had been started in previous years and were

allowed to become inactive. These were not reinstituted for 1976-77. Activities for organizations exclusive of regular meetings are shown in the table. The number of activities the organizations engaged in decreased as a result of policies applied to fund raising. All fund raising activities during 1976-77 had to be approved by the LHS administration so the number of sales of baked goods, candy, and pickles decreased. Also no sales were allowed during class time and only before or after regular school hours.

Table 1

Student Involvement at LHS
For Two Years, 1975-1977

	Organizations	Activities	Assemblies	Field Trips
1975-76	57	110	72	68
1976-77	49	47	71	103

The number of assemblies remained almost exactly the same. Assemblies number approximately one for every three days of school and it would be difficult to schedule more.

The number of field trips was increased dramatically. There were 50% more field trips during 1976-77 than were taken during the first year of the project.

Table 2 shows that the average daily attendance increased during both years of the renewal project. In three years these figures climbed from an average in the mid-80s to near 90% to figures for the 1976-77 year when each six-weeks average was 90% or better.

Table 2

LHS Students' Average Daily Attendance by Six Weeks
For Three Years 1974-1977

	Year 1974-75	Year 1975-76	Year 1976-77
1st 6 wks.	87%	88%	96%
2nd 6 wks.	88%	92%	93%
3rd 6 wks.	84%	88%	90%
4th 6 wks.	86%	89%	90%
5th 6 wks.	82%	86%	91%
6th 6 wks.	92%	89%	92%
Average	86%	89%	92%

2. The LHSRP made an effort to involve the community in its activities. The community relations staff contacted over 200 community agencies during the year. They continued the publication of LHS activities through the bimonthly "Lincoln Tiger-gram" which was distributed to parents and other members of the community. The emphasis on assembly programs involving community representatives continued. The number of field trips taking students out into the community was also increased. The Community Advisory Committee continued to function. The Continuing Education program operated for a second year. A log of visitors to the campus showed 480 visitors. During the first two weeks in March 1977 a sample of 382 parents of LHS students was interviewed about the construction of a new Lincoln High School and also about their interest in Continuing Education programs for 1977-78. During the last part of March 1977, 28 members of the LHS Citizens' Advisory Committee, which had been formed to plan for the new high school, were interviewed about the new construction.

3. Tables 3-6 show achievement test performance. An analysis of Iowa Tests of Educational Development (ITED) pretest and posttest scores for 1976-77 showed students making a large number of statistically significant gains and an even larger number of raw score gains. A comparison of student performance for males and females over 11 scores reported for the ITED yielded 22 scores per grade. Pretest and posttest means were compared using a two-tailed t-test at the .01 significance level. Statistically significant gains were made for 5 of the 22 scores for 9th grade students, 4 of 22 for grade 10, 4 of 22 for grade 11, and 2 of 22 for grade 12.

   Performance on the 11 scores reported for the ITED is shown in Table 3 for the ninth grade. The table presents raw score (except the Composite scores which are standard scores) means and standard deviations for males and females, the percentile rank associated with each mean and the t-value for each test of significance. The other figure in the table is the chance raw score for each subtest.

   Males' Reading Vocabulary scores showed a statistically significant increase from fall to spring at the .01 level and the percentile difference between means was eight points. Social Studies scores for ninth grade males increased significantly from fall to spring, also the percentile ranking increased by six points. Both males and females showed a statistical difference between raw scores means and an increase of six percentile points. One other score, Reading Total for males showed a statistical difference between the means and a two percentile point gain. Six other tests in Table 3 were significant at the .05 level.

Table 3

Comparison of Pretest to Posttest ITED Scores-Grade 9

SUBTEST (chance score)	SEX	n	MEAN RAW SCORE Pre		s.d. Pre		PERCENTILE Pre		t-VALUE
				Post		Post		Post	
Reading									
Comprehension	M	102	12.1	13.0	4.5	4.6	19	19	1.58
(14)	F	68	12.6	14.1	4.9	4.8	22	23	2.32*
Vocabulary	M	102	7.6	8.8	3.0	3.7	24	32	2.69**
(8)	F	68	7.8	8.4	2.8	2.6	24	21	1.43
Total	M	102	19.7	21.8	5.6	7.0	17	19	3.00**
(22)	F	68	20.4	22.5	6.7	5.7	17	21	2.61*
Language									
Usage	M	102	11.6	12.7	4.2	3.6	15	16	2.11*
(14)	F	68	13.0	14.2	4.6	5.3	19	21	1.91
Spelling	M	102	7.6	8.2	4.4	4.7	27	22	1.75
(8)	F	68	10.1	10.1	5.8	6.4	37	31	-.04
Total	M	102	19.2	20.5	6.8	6.9	10	14	2.18*
(22)	F	68	23.1	24.3	8.7	10.5	22	23	1.47
Mathematics	M	102	6.8	6.9	2.4	2.6	37	35	.35
(7)	F	68	6.0	6.5	2.4	3.0	29	35	1.02
Social Studies	M	102	11.6	13.7	3.8	5.6	24	30	2.95**
(12)	F	68	12.3	13.5	3.7	4.5	24	30	2.03*
Science	M	102	10.7	12.5	3.7	4.0	16	22	3.91**
(12)	F	68	11.1	12.5	3.0	3.5	16	22	2.69**
Use of Sources	M	102	11.1	10.6	3.9	3.8	17	16	-.95
(11)	F	68	11.5	12.2	4.4	3.7	22	21	1.45
Composite	M	102	21.1	22.4	6.5	7.9	15	14	1.63
(25)	F	68	22.1	23.9	6.6	7.7	17	19	2.30*

**significant at the .01 level (two-tailed test)

*significant at the .05 level (two-tailed test)

The analysis for grade 10 is shown in Table 4. The table shows that 10th grade students made statistically significant gains from fall to spring on 4 subtest scores at the .01 level and on 2 scores at the .05 level. The most dramatic gain was for females on the Social Studies subtest where a 21 point percentile difference was recorded. Female students also showed a statistically significant increase on Reading Total scores and on Composite scores. Male students made a statistically significant gain on Social Studies scores from fall to spring.

Table 4

Comparison of Pretest to Posttest ITED Scores- Grade 10

SUBTEST (chance score)	SEX	n	MEAN RAW SCORE Pre	MEAN RAW SCORE Post	s.d. Pre	s.d. Post	PERCENTILE Pre	PERCENTILE Post	t-VALUE
Reading									
Comprehension	M	86	12.2	13.0	4.6	5.2	13	13	1.29
(14)	F	70	13.9	15.4	5.1	6.2	20	20	2.23*
Vocabulary	M	86	7.9	8.4	3.9	3.7	19	16	1.19
(8)	F	70	8.6	9.2	4.3	4.4	28	25	1.63
Total	M	86	20.2	21.4	6.9	8.1	11	11	1.65
(22)	F	70	22.5	24.6	8.2	9.6	18	20	2.65**
Language									
Usage	M	86	12.3	12.8	4.3	4.4	10	12	1.02
(14)	F	70	14.3	15.5	5.3	5.5	17	24	2.30*
Spelling	M	86	6.8	7.4	4.3	4.2	14	10	1.55
(8)	F	70	11.2	11.1	6.9	7.3	30	25	-.16
Total	M	86	18.7	19.8	8.0	8.3	05	06	1.52
(22)	F	70	25.5	26.7	10.3	10.6	24	23	1.54
Mathematics	M	86	7.3	7.2	2.6	3.1	33	31	-.19
(7)	F	70	6.5	7.2	2.4	3.0	33	31	1.75
Social Studies	M	86	11.9	14.1	3.5	5.9	17	22	3.27**
(12)	F	70	13.1	16.5	4.0	6.6	21	42	4.20**
Science	M	86	12.1	11.8	4.3	4.5	16	13	-.59
(12)	F	70	12.8	13.7	3.7	4.6	20	22	1.87
Use of Sources	M	86	11.1	10.8	4.0	4.4	15	13	-.59
(11)	F	70	12.4	13.4	4.0	4.1	19	23	1.97
Composite	M	86	21.2	21.7	7.7	9.4	09	08	.66
(25)	F	70	24.5	26.5	7.3	8.3	18	21	2.84**

**significant at the .01 level (two-tailed test)

*significant at the .05 level (two-tailed test)

The analysis for grade 11 is shown in Table 5. Four t-tests were statistically significant at the .01 level and three were significant at the .05 level. Because of the adjustment of the norms from fall to spring to account for maturation, a statistically significant difference between means for females on the Language Spelling subtest was associated with a percentile decrease. Females made a 4 percentile point

Table 5

Comparison of Pretest to Posttest ITED Scores-Grade 11

SUBTEST (chance score)	SEX	n	MEAN RAW SCORE Pre		s.d. Pre		PERCENTILE Pre		t-VALUE
				Post		Post		Post	
Reading									
Comprehension	M	66	13.5	13.9	5.4	6.7	14	11	0.74
(14)	F	78	14.6	16.0	6.4	6.1	17	17	2.39*
Vocabulary	M	66	8.6	9.3	3.7	4.5	21	18	1.68
(8)	F	78	9.9	9.8	4.6	4.7	26	22	-.30
Total	M	66	22.1	23.2	8.1	10.3	11	11	1.35
(22)	F	78	24.5	25.8	10.0	9.8	18	16	1.62
Language									
Usage	M	66	12.3	13.2	4.5	5.1	9	11	1.46
(14)	F	78	15.7	16.8	6.3	5.7	22	24	1.89
Spelling	M	66	8.7	8.8	5.9	5.8	15	13	.27
(8)	F	78	12.6	14.3	7.0	7.6	33	31	3.51**
Total	M	66	21.0	21.8	9.0	10.0	7	9	.94
(22)	F	78	28.3	31.1	12.3	12.2	22	26	3.20**
Mathematics	M	66	6.8	7.1	2.5	3.2	29	28	.81
(7)	F	78	6.7	6.9	2.9	2.8	29	28	.44
Social Studies	M	66	12.8	15.0	3.5	6.1	16	26	2.93**
(12)	F	78	13.6	15.3	4.7	5.2	20	26	2.73**
Science	M	66	13.0	13.7	5.3	6.2	16	19	1.19
(12)	F	78	13.2	13.8	4.7	4.9	16	19	1.09
Use of Sources	M	66	11.5	12.8	3.7	3.6	16	18	2.43*
(11)	F	78	14.1	14.4	4.6	5.2	26	23	.53
Composite	M	66	22.7	23.3	7.5	10.2	9	9	.76
(25)	F	78	26.6	28.2	9.2	9.0	19	18	2.31*

**significant at the .01 level (two-tailed test)

*significant at the .05 level (two-tailed test)

gain on the Language Total score and had a statistically significant difference between means. The Social Studies subtest analysis was also statistically significant for females who showed a 6 percentile point gain from fall to spring. Males showed the largest percentile increase for 11th grade students gaining 10 points on the Social Studies subtest. The raw score analysis for this difference was also statistically significant.

Table 6

Comparison of Pretest to Posttest ITED Scores-Grade 12

SUBTEST (chance score)	SEX	n	MEAN RAW SCORE Pre	MEAN RAW SCORE Post	s.d. Pre	s.d. Post	PERCENTILE Pre	PERCENTILE Post	t-VALUE
Reading Comprehension (14)	M	59	14.5	16.9	7.2	7.4	11	12	3.42**
	F	78	17.7	17.6	7.8	8.5	19	15	-.09
Vocabulary (8)	M	59	10.1	11.3	6.1	6.6	17	13	2.63*
	F	78	11.4	12.4	6.2	6.1	20	15	2.56*
Total (22)	M	59	24.6	28.2	11.7	12.8	11	12	4.05**
	F	78	29.1	30.1	13.0	14.1	18	13	1.33
Language Usage (14)	M	59	15.1	15.9	6.5	6.7	14	11	1.28
	F	78	17.7	18.5	7.3	7.5	22	18	1.50
Spelling (8)	M	59	9.9	11.2	6.8	6.8	13	12	2.30*
	F	78	14.7	15.4	9.4	9.7	29	23	1.11
Total (22)	M	59	25.1	26.9	12.2	13.1	11	09	1.72
	F	78	32.4	33.8	15.5	16.2	22	19	1.64
Mathematics (7)	M	59	7.5	7.4	4.4	4.1	27	16	-.26
	F	78	7.4	7.5	3.5	3.8	22	20	.13
Social Studies (12)	M	59	13.2	14.9	5.1	6.0	10	12	2.64*
	F	78	14.7	15.5	4.5	6.5	19	15	1.48
Science (12)	M	59	14.1	14.5	5.1	5.8	14	12	.87
	F	78	14.4	14.6	5.5	5.9	14	12	.25
Use of Sources (11)	M	59	13.7	13.7	5.3	6.6	17	11	.02
	F	78	15.2	16.1	6.0	6.7	21	17	1.87
Composite (25)	M	59	25.6	27.2	11.4	11.8	10	07	1.63
	F	78	30.0	30.7	11.1	12.2	17	12	.90

**significant at the .01 level (two-tailed test)

*significant at the .05 level (two-tailed test)

Male students in the 12th grade had 2 differences statistically significant at the .01 level as shown in Table 6. Although they gained only 1 percentile point in Reading Comprehension and Reading Total the raw score analyses were statistically different. Of the 22 raw scores in Table 6 it can be seen that 19 of them showed a drop in percentile standing from fall to spring. Only one other set of means those for the 12th grade males, the Social Studies subtest, showed a percentile increase.

When performance across the four grades was considered it appeared that students were able to make statistically significant raw score gains on the various subtests. A comparison of the performances of the four grades is shown in Table 7. On the Social Studies subtest only one group, senior females, failed to make a statistically significant gain from fall to spring. Only on the Mathematics subtest was any group unable to show a statistically significant gain. Of the 88 cells in Table 7 formed by combining the 4 grades, 2 sexes, and 11 subtests, there were 15 combinations where a statistical test of the difference between means was significant at the .01 level. All of these significant differences except one were associated with spring scores above the level of chance. At the .05 level, 15 more cells were statistically different. All but three of these were associated with spring scores above the chance level.

Table 7

Statistically Significant Differences Between Raw Score Means from Fall to Spring

Grade	Sex	Reading Comp	Reading Vocab	Reading Tot	Language Usage	Language Spell	Language Tot	Math	Social Studies	Sci	Use of Sources	Comp
9	M		1^a	1	5		5		1^a	1^a		
	F	5^a		5^a					5^a	1^a		5
10	M								1^a			
	F	5^a		1^a	5^a				1^a			1^a
11	M								1^a		5^a	
	F	5^a				1^a	1^a		1^a			5^a
12	M	1^a	5^a	1^a		5^a			5^a			
	F		5^a									

1=statistically significant at .01 level
5=statistically significant at .05 level
^{a}spring score above chance level

One specification of the LHSRP proposal called for a six percentile point increase on each of the subtests of the ITED by at least 50% of the students. Table 8 shows the number and percent of students who made this specified increase. Only one group, 10th grade females on the Social Studies subtest, met this specification. One other group, ninth grade males, came within one percentage point of meeting the specification on the Reading Vocabulary subtest. There were 13 other categories with over 40% of the students making a 6 percentile points increase. All but one of these categories were in the 9th and 10th grades. From the 11th and 12th grades, only 11th grade males on the Social Studies subtest (43.9%) had a percentage of 40 or more making the specified gain. Students in the 9th grade had 8 categories with 40% or more; 10th grade students had 6. Groups making the specified gain were split almost evenly by sex. Considering performance across the four grades more students (39.2%) made the 6 percentile points increase on the Social Studies subtest than on any other subtest.

In summary, there were two categories where students effectively met the specification. Next, there were 15 categories out of 88 possibilities where at least 40% of the students in each category made a 6 point increase; in an upper grade. Further, there were 37 categories out of 88 where at least one-third of the students in each category made a 6 point increase. And, lastly, when considered across all grades, students performed better on the Social Studies subtest with nearly 4 out of every 10 of them making a 6 percentile point increase.

On 16 March 1977, seniors at LHS took the Everyday Skills Tests - Reading and - Mathematics. Scores for 189 students were available for analysis. On the Reading section, three items were used to test each of 15 objectives which covered such things as reading labels, want ads, schedules, job applications, tax forms, etc. Most items were designed to look like or were actual photographic reproductions of tax forms, want ads, etc. The Mathematics section, also 3 items for each of 15 objectives, attempted to measure student performance on seemingly very practical mathematics problems of the type a consumer would encounter. Typical consumer skills such as figuring sales taxes, comparing costs, computing income taxes, and reading charts and graphs were intended to be measured by this test. As with the reading tests, the mathematics test used realistic examples.

Table 8

Number and Percent of LHS Students Making 6 Percentile Points Increase on ITED

Grade	Sex	Reading Comprehension n	Reading Comprehension %	Reading Vocabulary n	Reading Vocabulary %	Reading Total n	Reading Total %
9	M	33	32.4	50	49.0	41	40.2
	F	20	29.4	25	36.8	25	36.8
10	M	30	35.3	29	34.1	29	34.1
	F	28	40.0	25	35.7	28	40.0
11	M	14	21.2	22	33.3	16	24.2
	F	25	32.5	14	18.2	20	26.0
12	M	14	24.1	11	19.0	10	17.2
	F	16	20.5	21	26.9	10	12.8
Total		180	29.7	197	32.5	179	29.5

Table 8 cont'd

Number and Percent of LHS Student Making 6 Percentile Points Increase on ITED

		Language Usage		Language Spelling		Language Total	
Grade	Sex	n	%	n	%	n	%
9	M	42	41.6	25	25.8	31	32.0
	F	31	45.6	14	20.6	16	23.5
10	M	27	32.1	21	26.6	19	24.4
	F	31	44.3	17	24.3	22	31.4
11	M	17	25.8	15	23.1	13	20.0
	F	27	35.1	29	37.7	28	36.4
12	M	8	13.8	13	22.8	5	8.8
	F	17	21.8	14	18.2	15	19.5
Total		200	32.9	148	24.4	149	24.5

Table 8 cont'd

Number and Percent of LHS Students Making 6 Percentile Points Increase on ITED

Grade	Sex	Mathematics		Social Studies		Science		Use of Sources		Composite	
		n	%	n	%	n	%	n	%	n	%
9	M	38	35.[illegible]	47	46.1	44	43.1	26	26.5	36	37.9
	F	31	45.6	27	39.7	30	44.1	27	39.7	23	33.8
10	M	29	33.7	38	44.2	23	26.7	27	31.4	24	30.8
	F	23	32.9	37	52.9	28	40.0	23	32.9	24	34.3
11	M	25	37.9	29	43.9	24	36.4	23	34.8	19	29.2
	F	23	29.5	31	39.7	26	33.3	25	32.1	24	31.2
12	M	15	25.4	12	20.3	11	18.6	11	18.6	5	8.8
	F	18	23.1	17	21.8	12	15.4	20	25.6	9	11.7
Total		202	33.3	238	39.2	198	32.6	182	30.0	164	27.0

Table 9 shows student performance on the EST Reading and Mathematics tests according to the number of objectives mastered. All students who took the EST Reading test mastered at least two objectives. Mastery was defined as answering correctly two of the three items testing an objective. An inspection of the tables shows that 80% of the students mastered 12 or more objectives of the Reading subtest. The table shows that over 40% of the students mastered 10 or more Mathematics objectives; 55% mastered 9 or more.

Table 9

LHS Senior Performance on EST

Reading: Sex		Number of Objectives Mastered														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Male	n	86	86	85	83	82	81	78	75	71	67	63	60	51	42	19
	%	100	100	99	97	95	94	91	87	83	78	73	70	59	49	22
Female	n	103	103	103	103	102	101	98	98	97	96	95	91	80	58	35
	%	100	100	100	100	99	98	95	95	94	93	92	88	78	56	34
Mathematics:																
Male	n	86	85	82	77	74	70	60	54	46	33	23	16	14	8	2
	%	100	99	95	90	86	81	70	63	53	38	27	19	16	9	2
Female	n	103	101	100	98	95	87	80	68	58	47	43	29	18	9	1
	%	100	98	97	95	92	84	78	66	56	46	42	28	17	9	1

Table 10 shows how performance on EST Reading compared across objectives. Over 90% of the students mastered each of the first three objectives. The objectives got progressively harder as the test continued. The way the test was constructed the first three items measured the first objective, the next three the second objective and so on. Still only on the last two objectives did either males or females fall below a 70% mastery rate. Table 11 shows an analysis of EST Mathematics performance across the 15 objectives. A comparison between Tables 10 and 11 shows that the level of mastery of the Mathematics objectives was lower than for the Reading objectives. There were 5 objectives where the mastery rate fell below 50% and 10 were the rate was below 70%.

Table 10

LHS Senior Performance On Everyday Skills Tests - Reading Number and Percent Mastering Each Objective

Objective (3 items)	Mastery			
	Males		Females	
	n	%	n	%
1. Labels: *identify detergents, vitamins, etc.*	81	94	102	99
2. Telephone Directories: *locate numbers, addresses, etc.*	78	91	99	96
3. Medical Instructions: *identify terminology, instructions, etc.*	76	88	98	95
4. Labels-Caution: *identify terms such as toxic, flammable, etc.*	71	83	89	86
5. Ingredients: *identify ingredients from different products*	75	87	100	97
6. Preparation Directions: *interpret instructions in a recipe*	71	83	98	95
7. Abbreviation Meaning: *interpret common abbreviations*	72	84	98	95
8. Store Directories: *select a department to locate an item or service*	77	90	100	97
9. Job Want Ads: *select a job according to hours, salary, etc.*	78	91	96	93
10. Outdoor Signs: *identify stop, detour, high-voltage, etc. signs*	76	88	94	91
11. Tax Forms: *complete information asked for in these forms*	62	72	94	91
12. Transporation Schedules: *determine a bus or airline travel plan*	69	80	91	88
13. Job Applications: *complete information asked for in these forms*	60	70	90	87
14. Driver's Handbook: *recall specific information from such a book*	53	62	60	58
15. Newspaper Reporting: *Differentiate between fact and opinion*	30	35	54	52

Table 11

LHS Senior Performance On Everyday Skills Tests - Mathematics Number and Percent Mastering Each Objective

Objective (3 times)	Mastery			
	Males		Females	
	n	%	n	%
1. Spending Behavior: *select which articles can be purchased with an amount of money*	78	91	99	96
2. Currency: *compute change from a purchase*	79	92	91	88
3. Cost Comparison: *compute difference in cost between two articles*	74	86	89	86
4. Time Calculation: *compute difference between two times of day*	64	74	74	72
5. Travel Time: *compute time given distance and rate*	62	72	79	77
6. Discount Rate: *compute discounted sale price*	52	60	44	43
7. Sales Tax: *compute sales tax due on a purchase*	46	53	63	61
8. Rate of Interest: *solve simple investment problem*	29	34	42	41
9. Income Tax Calculations: *solve basic tax form problems*	51	59	73	71
10. Charts and Scales: *use a chart or scale drawing to determine distance or position*	47	55	64	62
11. Graphs: *read and interpret information on a graph*	53	62	76	74
12. Fractions: *solve problems involving fractions*	31	36	51	50
13. Personal Records: *use computational skills necessary for keeping personal records*	18	21	26	25
14. Approximation: *solve problems involving approximation*	31	36	43	42
15. Metrics: *solve problems using metric units of measurement*	15	17	23	22

4. The Lincoln High School staff development coordinator with the assistance of other Lincoln administrators planned and held staff development workshops at LHS. The purpose of the workshops was to sensitize the faculty to maximize the understanding of the social and cultural biases in education. Prior to each staff development session, specific objectives were determined by the staff development coordinator. With the assistance of a member of R&E, specific instruments for almost every presentation were developed. In those cases where the presenter was not a regular part of the DISD, R&E acted as an auditor of the activity attending the session and after the presentation interviewing the consultant (s) and some of the participants but not attempting to perform a systematic criterion-referenced evaluation.

   Lincoln High School's first staff development session was held on September 24, 1976. The agenda consisted of the staff viewing a film on prejudice, after which they were randomly divided into groups to discuss and define cultural pluralism, institutional racism, an open society and diversities of race, religion, and nationality. Also, the staff was to recognize the necessity of education in providing a culturally pluralistic curriculum and moving toward the creation of an open society. The results of the staff development workshop were assessed by administering a questionnaire to the Lincoln staff members. Also, each group leader provided a written summary of their respective group session. The objectives of the session were four:

> Viewers will be able to identify and discuss the five major kinds of prejudice, as manifested in people's behavior: antilocution, avoidance, active discrimination, violence and killing (lynching, genocide, murder).
>
> Viewers will be able to identify and discuss the major causes of prejudice: incomplete information or ignorance, fear of the unknown, and environmental influences.
>
> Viewers will be motivated to discuss their own attitudes and feelings about people of different backgrounds, religion, sex, or ethnic group.

> Viewers will be able to identify and discuss both the causes and the specific effects of their own prejudices.

On October 29, 1976, LHS staff members participated in a staff development session. The agenda consisted of the staff dividing into three groups by departments. The results of the staff development workshop were assessed by members of R&E observing the groups' activities. Also, the group leaders and some participants were interviewed for comments concerning the sessions. Each group's agenda included the following objectives:

> The participants will state the concepts inherent in pluralistic curriculum.
>
> The participants will identify the resources, human and material, strategies, and process needed to build a pluralistic curriculum.
>
> The participants will design a pluralistic learning unit in his/her content area.

On November 15, 1976 Dr. David Talbert, of East Texas State University, a staff consultant for the LHSRP, conducted a staff development session for the Lincoln faculty. The purpose of the session, according to the presenter, was to sensitize the faculty to the importance of having a positive self-concept in an education system. Since the objectives and the format of the presentation were not known beforehand, R&E acted as an auditor fo this element of the LHSRP.

R&E observed the staff development activity at LHS on December 10, 1976. This was a presentation by Ms. Jeanne Presley on student self-concept. At the closing of the staff training, the R&E staff member administered a questionnaire which had been developed jointly by R&E and the coordinator. The instrument was designed for participants to record their responses to the objectives of the session. The objectives were:

> The participants will indicate his/her knowledge of self-concept by listings ways in which the self-concept is developed.
>
> The participants will indicate his/her knowledge of the influence of the self-concept in the learning situation by identifying effects of a positive and negative concept upon the learning situation.

> The participant will list specific ways to build self-concept of the Lincoln students.

These objectives were used to develop a questionnaire, administered at the end of the session. Eighty-four staff members participated in the staff development session. The training was led by Dr. Mamie McKnight of El Centro College, a consultant for the project.

On January 14, 1977 Dr. Frank Halsted, of North Texas State University, a consultant for the LHSRP, conducted a session for the Lincoln faculty. R&E audited the session. The LHS staff development coordinator introduced the topic to be discussed, "Strengthening the Teaching/Learning Experience," which included the following objectives:

> The participants will identify prerequisites for the learning situation.
>
> The participants will identify evidences of the learning experience.
>
> The participants will identify ways to strengthen the teaching/learning experience in their content area.

On January 28, 1977 Dr. Joyce Miller, of East Texas State University, a staff consultant for the LHSRP, conducted a staff development session for the faculty. The staff development coordinator introduced the consultant and briefed the faculty on the topic to be discussed. The consultant's presentation dealt with "Questioning Strategies." At the close of the session, the faculty was asked to respond to a questionnaire dealing with the objectives of the consultant's presentation. The session intended to meet the following objectives.

> The participant will know the levels of questioning.
>
> The participant will know strategies to use to ask questions at the various levels.
>
> The participant will know techniques to use to stimulate the thinking processes of the students.

The LHSRP staff development coordinator directed a training session for the faculty on February 11, 1977. The purpose of the session was to familiarize them with the topic "Strategies for Questioning." R&E queried the faculty at the end of the staff development session for the purpose of revealing the extent to which the objectives had been attained. A questionnaire was used that had been developed by R&E and the coordinator from the two objectives. Also, the questionnaire elicited the faculty to respond to items concerning a film "Learning Through Inquiry" which was shown during the presentation. The objectives of the staff development activity were two:

> The participant will know strategies for developing thinking abilities in the classroom.
>
> The participant will know techniques for creating an inquiring approach in the classroom.

On February 25, 1977, LHS staff members participated in another staff development session. The agenda consisted of a presentation by Dr. Harold Lang, Principal/Director of the LHSRP. The presenter dealt with the topic, "Racism as Evidenced in Testing." He discussed the misuse of tests and tests results. Also, the agenda consisted of the administration of a culturally biased test, the Black Intelligence Test of Cultural Homogenity (BITCH), to the participants. The agenda also included a question and answer session dealing with the test. The objectives of the LHSRP staff development were:

> The participants will be able to give a definition of test bias.
>
> The participants will be able to identify how test bias may occur by experiencing a culturally specific test.
>
> The participants will know the kinds of test construction that may affect test bias.
>
> The participants will enumerate ways in which test bias may occur.

On March 11, 1977, Ms. Chloe Baker of the DISD's career education counseling staff conducted a staff development session at LHS. Ms. Baker was assigned to Pearl C. Anderson Middle School and Lincoln and Madison High Schools. Her presentation entitled "Career Education" was attended by almost the entire faculty. R&E, not knowing in advance the objectives or the content of the presentation, acted as an auditor of the session.

A staff development session was conducted on March 18, 1977. The agenda consisted, in part, of a lecture by the staff development coordinator over the first three of the day's five objectives. After the lecture, "A Move Toward Openness", the participants were asked to divide into groups according to the grade level they either taught or sponsored. Each group was to choose a leader to facilitate the group discussion which dealt with the final two objectives. During the group sessions the staff development participants viewed films that dealt with the final two objectives. Each of the four groups saw different films. The R&E staff observed the staff development activities. Before the session, an evaluator discussed with the staff development coordinator her objectives and after the meeting, her post-session assessment of how well these objectives were met. From these data the report was written. The five objectives covered by the session were:

> The participants will identify the characteristics of the adult ego state as defined in transactional analysis.
>
> The participants will identify the characteristics of the autonomous adult.
>
> The participants will identify the characteristics of the ethics from which the adult functions.
>
> The participants will identify frustration teenagers experience.
>
> The participants will outline ways of helping teenagers cope with their frustrations.

On March 25, 1977, LHS staff members participated in a staff development session. The agenda called for the staff to divide into four groups by departments and meet in separate rooms. A questionnaire was developed which consisted of items dealing with the staff development objectives. The questionnaire also contained items concerning the March 18th presentation on the adult ego state which addressed the attributes of (1) awareness, (2) spontaneity, and (3) intimacy in teacher-pupil interactions. The activities of the workshop were monitored by four members of R&E. These persons also distributed and collected the questionnaires. Each of the group's agendas included the same objectives:

The participant will identify ways in which teachers can more effectively relate to students.

The participant will state two ways in which the films project his/her understanding of "openness" in education.

On April 8, 1977 a staff development session was held. The purpose, according to the LHSRP staff development coordinator, was to emphasize strategies for building a multiethnic/open society. Dr. Harold W. Lang, Principal/Director of the LHSRP, welcomed the staff guests. The coordinator then introduced the guest panelists. They were:

Mr. Rene Martinez - Dallas Chamber of Commerce

Mr. Leroy Mason - Community Services Administration

Mr. Randy Ratliff - Greater Dallas Community Relations Commission

Mr. Milton Tobian - American Jewish Committee

R&E acted as an auditor for this session since it was impossible to know beforehand the actual content of the session. The panelists task was to discuss and answer questions over the staff development objectives:

Identify ways in which ethnic minorities have been denied right of self-hood and economic and political power by the dominant group.

Describe ways in which one may insure multiethnic culturally pluralistic representation.

List ways in which one may move toward an open society.

On May 13, 1977, LHS staff members participated in another staff development session. The agenda called for the staff to divide into seven departmental groups and meet in separate rooms. A questionnaire was developed which consisted of items dealing with the staff development objectives. The questionnaires were distributed and collected by a member of R&E. Each of the group's agendas included the same objectives:

> The participant will know specific accomplishments in building a pluralistic curriculum.
>
> The participant will identify some of the areas in which work in pluralistic curriculum is needed.
>
> The participant will outline strategies for enlarging the curriculum in his/her content area for next year.

On May 27, 1977, LHS staff members participated in a staff development session. The agenda again called for the staff members to divide into seven departmental groups and meet in separate rooms. A questionnaire was developed which consisted of items based on the staff development objective. Each group's agenda included the same objective:

> The participant will outline strategies for enlarging the curriculum in his/her content area for next year.

For all of the sessions cited a planned program was conducted according to a written agenda. Objectives were formulated for the sessions. Where the format and content were under the LHSRP staff development coordinator's control instruments to measure participants' knowledge and reactions were constructed. The instruments were distributed, collected, and analyzed by R&E. A report or a memorandum documenting the sessions was written for program management. Although the sessions necessarily had varying degrees of interest and importance for the participants involved all sessions conformed with the stated objectives. In every case where instruments were developed a majority of those persons returning questionnaires were able to show an understanding of the content of the presentation. Each presentation was attended by at least one evaluator.

5. In an effort to assess the establishment of an "enriched instructional program" as outlined in the LHSRP proposal, a survey of all new curriculum taught at LHS was conducted by R&E. Information concerning the implementation of new courses was obtained by the use of teacher interviews plus classroom observations. The new classes taught the

first quarter were: Horticulture and Individual Study in Science (ISIS) from the science department; Fundamentals of Math I (FOM I) Enrichment Program, History of Math, Survey of Math, and Computer Math from the mathematics department; Humanities and Psychology from the social studies department.

An interview with the Horticulture teacher revealed that this class was unique in the DISD because it was the only Horticulture class offered as a one hour credit course. The teacher also expressed the opinion that this course fulfulled the "culturally pluralistic" requirement of the LHSRP by the fact that the development and use of horticulture by many different cultures was emphasized. The objectives of the course, according to the teacher, included the exposure of students to careers in horticulture, horticultural practices, and floral and landscape design. The teacher described the role of the resource teacher in the instruction of this course as one of organizing field trips, ordering supplies, and moving materials into the classroom. Materials used in the classroom included planting supplies, cassettes, filmstrips, and teacher-made materials.

The ISIS teacher explained that while the course was not new to the DISD it was new to LHS. The course was a combination of minicourses which stressed not only independent study but also dealt in practical knowledge rather than in scientific facts. The teacher expressed the opinion that the course was culturally pluralistic because many of the drawings in the minicourse material "show a variety of different cultures." In the words of the teacher, the main objectives of the course were:

> To give the student a broad overview of biology while allowing him to work at his own pace. It also gives the student more confidence by working on his own and making his own decisions.

The role of the resource teacher in the implementation of this course was one of providing many consumable and nonconsumable materials. The materials used included the minicourse packets, tapes, and laboratory equipment. The teacher felt the biggest problem in implementing the course was the fact that most students in the class could not read above a third grade level which made working on the minicourse packets difficult.

The FOM I enrichment program was used in all four sections. All FOM I students worked on the same type of material, but all work was individualized. A central testing and resource center was established where students were tested as they completed their packets. Students also received practice on activities within the packets to help them overcome specific weaknesses in their mathematics skills. These practice activities included such things as counting money and telling time. This type of mathematics enrichment is new to Lincoln High School. The mathematics resource teacher was responsible for directing the development of the self-pacing packets, giving students individual instruction in the center, and supervising the testing of students. The enrichment program served approximately 175 students the first quarter. The students were recruited based on test results and teacher recommendations. Teachers involved in the program felt there was a need for teacher aides to assist in the individualized classroom instruction and a need for a separate testing center. The testing center used one portion of a FOM I classroom without partions of any kind to separate activities.

The course title "History of Math" was not new to the DISD but the course, as it is taught at Lincoln, is unique. The concept was developed by the mathematics resource teacher and emphasized preparation for college mathematics and familiarity with employment requirements for mathematics skills. This emphasis included such objectives as knowing mathematics entrance requirements of local colleges, familiarizing students with the various college entrance tests, helping students become aware of careers in mathematics, and providing practice on mathematics problems similar to those found on college entrance tests. Materials used in implementing this course included Math Workbook for College Entrance Examinations by Samuel Brownstein, Career Opportunities in Math by Houghton Mifflin Co., newspapers, and college catalogs. Nineteen students were enrolled in the course for the first quarter. The course instructor needed more copies of the entrance exam workbook to facilitate class work. The first quarter she was required to reproduce pages of practice problems for each student.

No reportable information was gathered on the Survey of Math course. The teacher reported that none of the objectives had been implemented because of the mathematics achievement level of his students. The course description was similar to that of History of Math and called for practice on the mathematics portions of tests used by local employers, information and activities related to applying for jobs, information about the job market, and field trips to high employment industries.

The Computer Math course was unique because it was only a one quarter course. The general objectives of the course included: 1) use and application of computers, 2) use of the computer terminal, 3) reading of flowcharts, 4) writing of elementary programs in BASIC, 5) reading and punching paper tapes, and 6) examining careers in computers. Materials used in the course included computer terminals, a programmable calculator, films, workbooks, and worksheets. The mathematics resource teacher was responsible for securing films and arranging class field trips. Twenty students were enrolled the first quarter. Students enrolled in this course also participated in the FOM I enrichment activities discussed above. The FOM I resource and testing center was located in the same classroom and Computer Math students were observed participating in the administration and scoring of tests as well as working on basic mathematics skills and recieving instruction on the computer terminal.

The teacher was not certain, at the time of the interview, whether or not Humanities was taught anywhere else in the DISD. She did say for certain that no Baseline information was available. This was the first quarter for Humanities to be taught at LHS. It was inferred that the general course objective was to expose students to all major aspects of humanity, e.g. justice, religion fine arts, nature. Since no Baseline information was available for this course, the teacher had to produce classroom materials from various sources. Most discussion material came from a college level textbook. Some of the material used was supplied by the social studies resource teacher. The course was taught to twenty seniors who chose the course as an elective during the first quarter. According to the teacher, the most pressing need was for materials and texts on the students' level.

The psychology teacher indicated that she followed the Baseline information provided by the DISD. This is not the first quarter that Psychology has been taught at LHS but rather was a continuation of the program from the 1975-1976 school year. The teacher felt that while this is not a new course at Lincoln High it was perhaps unique because it provided an opportunity to develop considerable self-understanding. This course also examined issues such as inherent racial differences and other areas of cultural pluralism. During the interview several general objectives were expressed. They were: 1) improve student self-knowledge, 2) expose students to some heretofore unfamiliar concepts such as superstition, 3) increase understanding and acceptance of others, and 4) give students insight into personality development. Materials used in teaching the course included a textbook, library books, films, and tapes were reported available for use.

New or enriched courses/programs for the second quarter were reported to be: Mathematics Peer Tutoring, Reading Peer Tutoring, American Government, Sociology, and Speech Tutoring.

The study hall teacher acted as the coordinator of the mathematics peer tutoring program. He reported that to help him manage the tutoring program he was supplied with a copy of the District's Guide For Organizing A Tutoring Program. He felt that the rationale for starting a tutoring program was a commitment to quality education for all students in the DISD. He stated that this course was an entirely new course for LHS, but that all parts of the course were related to the DISD Baseline Curriculum. He stated that he felt that the course was culturally pluralistic because the materials, methods, and procedures were those used from the beginning of formal teaching of mathematics. He said the main objectives were to work with the students on a one-to-one basis at their own pace. The resource teacher was reported to have recruited and selected tutors and tutees and to have organized the program's operation. The coordinator reported using McGraw-Hill's Programmed Math, Merrill Skill-Tapes, and Continental Press' Arithmetic Step-By-Step. Over 4 periods, 24 students were involved in this program, 12 as tutors and 12 as tutees during the second quarter.

The coordinator for the reading tutoring program, also a study hall teacher, was supplied the same information about the program as the coordinator for the mathematics tutoring program. She stated that this was an entirely new course for LHS. She stated that all parts of the course related to the DISD Baseline Curriculum and covered reading at all levels. She stated that the course was culturally pluralistic because the students used filmstrips and readings from the works of many nationalities. The main objective of the course was seen to be to provide individualized instruction at each student's own pace, free from the pressures of peer competition. Tutoring was seen to provide the students involved with reinforcement through repetitive practice of reading skills at all levels. McGraw-Hill's Programmed Reading, 3rd edition was the text. Supplementary materials used were skill sheets and tapes from McGraw-Hill, Continental Press' spiral-bound paper backs books and Xerox Corporation's PAL paperbacks. The coordinator reported that 31 students were enrolled in the course during four periods each day for the second quarter. The students were recruited by the English teachers.

The instructor for the American Government course stated that the values and ethics part was new to the curriculum while the remainder of the course was true to the DISD Baseline Curriculum. The teacher stated that she had not been given a copy of a course description, rationale or objectives. She stated that the course was culturally pluralistic because the class studied not just the values and ethics of of one ethnic group but of the nation as a whole. In the teacher's words, the main objective of the course was to prepare the students to assume their responsibilities as citizens and to teach them the value of their votes. The textbooks for the course were Macgruder's American Government and Civics by Grant Ball. The teacher's 5th period American Government class was recruited to try the enriched curriculum. This method provided 28 students during the second quarter. The teacher cited the lack of materials claiming that more were needed to meet the needs of the students.

The sociology instructor reported that she had received a copy of the course description, rationale and objectives. She stated that the pluralistic approach was the new and different part of the course, that most of the course was from the DISD Baseline Curriculum. The course, she said, dealt with all of the things it takes to be born, live, and survive in a society made up of different cultures. As understood by her, the objectives for the enriched sociology course were to teach the development of modern societal changes and to emphasize some of the problems that involved LHS students as members of a minority. The course covered societal developments in the political, social, educational, religious and legal areas. She reported that the resource teacher aided in the instruction of the course by providing materials needed to teach the lessons she planned since no textbooks were used to teach the course. Rather, supplementary materials, namely the Springboards series on "Freedom and Responsibility," "Coping with Life," "Values of Education," "Frustrations and Disappointments" and "The Dilemma of Morality Today" were used to teach from. The teacher reported that the students for the course were recruited by the resource teacher. She suggested that improvements to the course might be made by incorporating field trips and by locating a suitable textbook and acquiring or developing additional materials for the course.

The speech tutoring program was incorporated into the Industrial Cooperative Training (ICT) class during the second quarter. A volunteer from the Lone Star Gas Company spent two class periods a week at the school tutoring the Vocational Industrial Clubs of America (VICA) officers on their contest performance of the opening and closing ceremonies for a club business meeting. Both the volunteer tutor and the ICT coordinator were interviewed. The tutor said that he had been given a course description at the inception of the program which he started in January. The tutor did not know what parts of the course were new to LHS, but the teacher reported that it was entirely new, that no parts of it came from the DISD Baseline Curriculum. The tutor said that the program was unique in the sense that the school administration was willing to recruit outside help to prepare the students to face society. The regular teacher explained that previous VICA competitions had revealed weaknesses in students' grammar and diction. The tutoring program was begun to help students overcome these weaknesses. The course was described as culturally pluralistic by the teacher because it examined various ethnic speech patterns and attempted to train students to function in the mainstream of American social and economic life. The tutor felt the course was culturally pluralistic because it taught individual communication skills that could be practiced by anyone and would help provide Black students with standard speech patterns acceptable in any society. The volunteer expressed his ideas about what the main objectives of the course were. He felt that the course should provide students an awareness about what communication was both in work and in life. He believed that one's total self was involved in the communication process and that a student needed to learn this not merely out of a book, but rather through practice and by having a chance to perform. The ICT coordinator agreed that the primary objective of the course was to equip students with more effective communication skills. The tutor used the VICA Leadership Handbook to teach the course. He also employed books from his personal library and films to aid his instruction. Seven persons, all VICA officers, were enrolled in the speech tutoring program. The tutor suggested that adding field trips into the activities of the program would prove advantageous, that the class could profit by attending actual business meetings.

New or enriched courses for the third quarter were reported to be: Advanced Social Problems; Physics of Sports, incorporated into a physics class, and Human Sexuality, taught as a part of health.

The teacher for Advanced Social Problems said the course was completely new and different as far as she knew and that there was no part of the Baseline Curriculum that related to this course. The rationale and objectives for the course were provided to her by the social studies resource teacher. It was stated that no textbook was used to instruct this course. The instructor used the books Civic Problems, from the Houghton-Mifflin series Justice in Urban America, and Texas Law in Layman's Language by Ralph Walton along with the Senior Scholastic magazines. The teacher reported that ten senior students had been recruited and enrolled by the counselors for this course during the third quarter. The teacher could not suggest any additional objectives for the course and she expressed the opinion that all of the present activities and objectives were appropriate for the course.

The instructor for Physics of Sports stated that he suggested the course content and that the resource teacher helped gather materials for it such as laboratory exercises. A packet developed by the District was the basis for instruction. The packet contained the objectives and rationale for the minicourse. The minicourse as it was taught added more emphasis on mechanics and vector analysis than the regular physics class. It was designed to teach applied mechanics. The instructor stated that this was an easy way to introduce the students to the study of the mechanics of motion. DISD's Career Oriented Pre-Technical Physics was the text for this minicourse. Supplements were Schaum's Outline Series for Physics and Harvard Projects. The last book was used for laboratory exercises. The instructor reported that 25 students, mainly seniors, were enrolled in the physics course during the third quarter. The teacher reported that he had added some objectives and that more problems for the students to work on were still needed. He stated that he omitted materials in the packet that he judged as inappropriate or ineffective for his classes.

The instructor for Human Sexuality reported that the minicourse which was taught as a part of four health classes was developed by the resource teacher who presented it to him along with the rationale and objectives for its instruction. The teacher reported that the minicourse was a new part of the curriculum to him as well as to Lincoln High School and to the District. He said that he had never taught human sexuality before. The teacher stated that all parts of the minicourse were from the DISD Baseline Curriculum. In the teacher's words the rationale for the course was to improve the students' lives and to make them more aware of the total person that they each were. The text Masculinity and Femininity by Miller, Rosenberg, and Stackowski along with the supplementary book Investigating Your Health by the same authors was used for the minicourse. Also the games, filmstrips, and other materials from the set Woman's Contemporary Image developed by Jean Adams and others was also used. The teacher reported that he had 47 students enrolled in 4 classes the third quarter. He noted that the counselors had recruited and scheduled these students into his health classes. He stated that the minicourse was complete in his estimation and that he saw neither a need for the addition nor deletion of objectives or activities.

During the first quarter the new/enriched courses at LHS seem to have had varying degrees of success. Courses in mathematics, with one exception, appeared to have been well thought out, organized, and supplied. Courses in the social studies area seemed to suffer from a lack of grade level materials and clearly defined objectives. The science department had some success with its Horticulture course despite the lack of a greenhouse. The ISIS program had some difficulties due to its reading and individual study requirements. Three tutoring programs and two enriched courses were tried at LHS during the second quarter. Speech tutoring was conceived and developed at LHS. It seemed to have been well organized and functioned well toward a clearly defined purpose. Reading and mathematics peer tutoring were DISD programs imported to LHS. The content and structure of the program had been worked out beforehand; teachers had only to deal with implementation. Two social studies classes were enriched by the resource teacher. The courses both had written rationales and objectives, but teachers reported a need for additional materials. Three enriched courses were taught at LHS during the third quarter. The social studies course and the human sexuality minicourse were reported by the instructors to have been developed at Lincoln High School by the resource teachers in social studies and science. The physics course was taught from a packet developed by the District with the addition of laboratory activities provided by the science resource teacher. The physics instructor reported that his minicourse needed additional problems. The other two teachers reported their courses as complete. Activities that were observed for all courses/programs seemed to be in accord with the stated objectives for instruction. Generally, students in all courses were observed to have been attentive and responsive to instruction. Teachers were noted to have shown a facility for leading classes in discussions and motivating student interest. A good rapport between the teachers and their classes was noted.

6. A management plan was formulated in June 1976 that detailed physical improvements to the LHS campus. The following items on the plan were accomplished by June 1977:

    1. Replaced existing classroom doors on four rooms to secure expensive classroom equipment

    2. Installed locking storage cabinets or added locks to existing cabinets in 19 classrooms

    3. Added two staff restrooms

    4. Replaced chalkboard with bulletin board in three classrooms

    5. Added locks in girls' gymnasium and replaced lower glass windows with metal

    6. Remodeled a room into a dance classroom with mirrors and bars, replaced glass windows with metal half way up the wall

    7. Added a sink with running water and storage to an art classroom

    8. Added L-shaped counter with locking cabinet doors in the media center

    9. Added storage shelves in horticulture classroom

    10. Filled the drainage ditch

    11. Constructed faculty parking lot

    12. Replaced all glass bricks with regular masonry

7. Thirty-two formal evaluation reports on all aspects of the LHSRP plus numerous memos to program management documented

the activities of the second year of the project. A complete list of reports that were produced is shown in the final section of this abstract.

Additional Information:

LE77-043-9-9 Evaluation of the 1976-77 Lincoln High School Renewal Project, 1977, R. A. Zepeda, Abner Johnson, Jr., Mary Rose Edmond, Joel Vannocher

76-864 Evaluation of the First Year of the Lincoln High School Renewal Project, 1975-76, 1976, Richard A. Zepeda, Abner Johnson, Jr., Gordon C. Sawer, Jr., 220 pages.

Abstract

Evaluation of the Instructional Television/Videotape Pilot Program 1976-77

Evaluator: James P. Papay

Objectives of the Program: During the past years, Channel 13 KERA TV has served the Dallas Independent School District (DISD) with various television series. To increase these services, the pilot videocassette project was approved by the DISD Board of Education. The pilot project was designed to extend the open air broadcast programming available through Channel 13 by videotaping current programs and by providing additional programs as requested. The extension of the instructional television through the videotape medium was to provide the flexibility needed to allow the teacher to manage the media and, consequently, increase teacher attitude toward instructional television use. The major objective of the ITV/Videotape Pilot Project was, therefore, to increase teacher attitude toward ITV utilization by providing greater flexibility for ITV use. An additional objective was later formulated by the District which was concerned with determining the effectiveness of ITV videotape toward increasing student achievement on standardized systemwide tests.

Purpose of the Evaluation: The purpose of the present investigation was to summarize information on the use of instructional television programs delivered to District students via videocassettes produced and disseminated by KERA-13 TV and to analyze their effectiveness in increasing performance on standardized systemwide achievement tests.

Sample: The sample for the analysis of the Instructional Television Questionnaire (ITQ), which was returned on a weekly basis, consisted of all the teachers that volunteered to participate in the Instructional Television Videocassette Project at James Bonham, Albert S. Johnston, John J. Pershing, Reinhart, T. G. Terry, L. V. Stockard Junior High School, and W. W. Samuels High School. Teachers were required to fill out an ITQ form for each program they viewed. The sample used for determining achievement consisted of kindergarten, first, second, and fourth grade project participants as well as their comparison groups from Albert S. Johnston. All treatment students were used in the analysis; whereas, comparison students were selected randomly from the rosters. However, at the beginning of the project, participants were also selected on a fairly random basis by teachers. Process evaluation data was obtained during site visits.

Test Instruments:

The Instructional Television Questionnaire. The ITQ consisted of a 20-item, multiple-choice and fill-in-the-item type instrument designed to acquire information on the use of the instructional television videocassettes. For example, information was obtained on program use, numbers of students viewing programs by grade level, hours of use, attitudes, availability of equipment, as well as, other questions designed to present a more complete picture of instructional videocassette utilization in the District.

Achievement Tests. Systemwide achievement tests consisted of the Metropolitan Readiness Tests (MRT) and the Iowa Tests of Basic Skills (ITBS). Both of these tests are nationally known standardized tests used to assess achievement.

Investigation Designs

The evaluation design used for the analysis of the Instructional Television Questionnaire consisted of the following type of paradigm:

$$X_1\ O_1,\ X_2\ O_2,\ldots,X_i\ O_i$$

The treatments (X_1, $X_2,\ldots,X_i$) consisted of the instructional television videocassette programs selected by each teacher; whereas, the observations (O_1, $O_2,\ldots,O_i$) consisted of the teacher's response to the ITQ which they were required to fill out for each of the programs selected for viewing.

The evaluation design used to analyze the achievement data consisted of a pretest-posttest control group design that can be represented as:

$$\begin{array}{cccc} R_1 & O_1 & X_i & O_2 \\ \hdashline R_2 & O_3 & & O_4 \end{array}$$

The treatment (X_i) consisted of the instructional videocassette TV treatment, the observations (O_1, O_3) and (O_2, O_4) consisted of standardized pretest and posttest scores, respectively; while, R_1 and R_2 sybolically represent random selection from existing treatment and control groups.

The major evaluation questions that the ITQ sought to provide information on, for the purposes of this report, were:

1. What were the general categories of pupils viewing the programs?
2. What were the number of students and student viewing hours at each grade level?
3. What were the programs primarily used for: review, enrichment, instruction, recreation (reward), makeup, or other?
4. What was the chief basis for the selection of the programs: title or "Teacher Quick-Referenced Guide," teacher preview, professional discussion, or previous class use?
5. How available were each of the programs: available as needed, available but with the scheduling problems, or unavailable?
6. How available was viewing equipment: available as needed, available but with scheduling problems, or unavailable?

7. How operational was the viewing equipment: operational when needed, in need of fine tuning, or non-functional requiring outside technical repair?

8. What were the teachers' attitudes toward ITV delivered via videocassette: excellent, good, poor?

9. What were the teacher attitudes toward pre-training sessions for ITV videocassette usage?

10. Was the ITV Videocassette Project successful in producing achievement gains on standardized systemwide tests relative to students not receiving the program?

Results: The results are reported question-by-question.

Question 1. What were the general categories of pupils viewing the programs?

Table 1

General Student Category for Frequency of Film Usage

Category	Number of Schools in Project at Category	Interim Report February 1977	Summary Report
Elementary	5	71.4%	70.6%
Middle	1	14.0%	12.1%
Senior	1	4.6%	6.5%

The data in Table 1 shows that the frequency of usage of ITV programs was highest at the elementary grade levels, followed by middle and senior high school usage. Tabulation of the numbers of students viewing the programs and total hours of ITV videocassette instruction at grade level also showed that elementary school usage was highest followed by middle and senior high school. However, it should be noted that the ITV Videotape Project was implemented in five elementary, one middle and one senior high school. Consequently, usage is related directly to the numbers of schools participating at each category. The intent here was only to provide the context for considering the pilot project.

Question 2. What were the number of pupils and pupil viewing hours at each grade level?

Numbers of students and student viewing hours are summarized below:

Table 2

A Summary of Students and Student Viewing Hours at Each Grade Level

Grade Level	Number of Students	Number Student Viewing Hours
Kindergarten	5,914	1,723
First	3,439	960
Second	4,41[illegible]	1,267
Third	7,277	2,062
Fourth	11,110	3,152
Fifth	12.582	3,481
Sixth	12,649	3,479
Seventh	23,731	9,149
Eighth	15,737	5,962
Ninth	4,823	2,175
Tenth	3,536	2,535
Eleventh	3,440	1,672
Twelfth	1,654	875

Question 3. What were the programs primarily used for: review, enrichment, instruction, recreation (reward), makeup, or other?

Table 3

ITV Videocassette Program Use

Use	Interim Report February, 1977	Summary Report
Review	1.8%	1.8%
Enrichment	42.3%	40.5%
Instruction	47.7%	51.5%
Reward	1.8%	1.9%
Other	.5%	.3%

Inspection of Table 3 shows that the categories for use of the ITV videocassette programs remained the same across time. The use of this media for instruction showed the largest increase which was 3.8%. The major point of their data is to establish how the ITV videotape programs were used by teachers at the classroom level. These data show that the greatest use of these programs were for instructional purposes, followed by enrichment. Taken together, instruction and enrichment use accounted for over 90% of the ITV videotape utilization.

Question 4. What was the chief basis for the selection of the programs title or "Teacher Quick Reference Guide," teacher preview, professional discussion, or previous class use?

Table 4

Basis for Program Selection

Category	Interim Report February, 1977	Summary Report
Title	41.3%	42.1%
Preview	5.6%	5.9%
Discussion	8.3%	6.1%
Previous Use	38.8%	42.5%

Considering the data in Table 4, it can be seen that across time previous use of a film became the chief selection criteria rather than on the basis of title alone. However, those categories, title and previous use, virtually accounted for the selection criteria for determining program usability.

Question 5. How available were each of the programs: available as needed, available but with scheduling problems, or unavailable?

Table 5

Program Availability

Category	Interim Report February, 1977	Summary Report
Available	85.8%	90.9%
Scheduling Problems	10.6%	6.1%
Unavailable	3.6%	.1%

Inspection of Table 5 shows that programs were very available (85.8%) and, in fact, availability was improved from February, 1977 to the project's ending (90.9%). Moreover, over time (as reflected by the samples of data for analysis) there were fewer scheduling problems.

Question 6. How available was viewing equipment: available as needed, available but with scheduling problems, or unavailable?

Table 6

Viewing Equipment Availability

Category	Interim Report February, 1977	Summary Report
Available	90.8%	94.2%
Scheduling Problems	7.1%	4.3%
Unavailable	2.2%	0.0%

Inspection of Table 6 shows that viewing equipment was almost always available (90.8%) and the availability of equipment improved over time (94.2%). There was also fewer scheduling problems associated with equipment use during the latter part of the implementation of the project.

Question 7. How operational was the viewing equipment: operational when needed, in need of fine tuning, or non-functional requiring outside technical repair?

Table 7

Viewing Equipment Performance

Category	Interim Report February, 1977	Summary Report
Operational	95.3%	96.1%
Required Tuning	1.5%	1.6%
Required Repair	.2%	.3%

Inspection of Table 7 shows that equipment performance was again exemplary, virtually always in working order requiring few repairs and even little fine tuning.

Question 8. What were the teacher attitudes toward ITV delivered via videocassette: excellent, good, poor?

Table 8

Teachers' Attitudes Toward ITV Videocassettes

Category	Interim Report February, 1977	Summary Report
Excellent	63.9%	70.2%
Good	33.2%	28.1%
Poor	.2%	.[illegible]%

Inspection of Table 8 shows that from February to May the teachers' attitudes toward the use of videocassettes improved with the majority considering the instructional medium to be excellent for instructional purposes.

Question 9. What were the teacher attitudes toward the pre-training sessions for ITV videocassette usage?

> Information process information collected during site visits indicated that, in general, teachers felt the training sessions were useful. However, many teachers felt that many sessions were too low level and wasteful of time.

Question 10. Was the ITV Videocassette Project successful in producing achievement gains on standardized systemwide tests relative to students not receiving the programs?

Table 9

Means (M) and Standard Deviations (SD) on the MRT at the Kindergarten Level for the Number of Programs Viewed by Students Over the Year

Number of Programs Viewed*	Test Type	Pretest			Posttest		
		N	M	SD	N	M	SD
Three	MRT (Composite)	15	34.33	13.88	15	37.80	6.84
Four	MRT (Composite)	56	30.45	14.75	56	30.55	9.69
Five	MRT (Reading Comprehension Subtest)	24	40.70	14.87	27	33.44	11.4

*Three Program Configuration: *Carascolendas, Let's All Sing, and Villa Alegre*

*Four Program Configuration: *All About You, Let's All Sing, Primary Art, and Word Shop*

*Five Program Configuration: *All About You, Let's All Sing, Math Factory, Primary Art, and Word Shop*

Several analyses were performed on the kindergarten data summarized in Table 9. First, an analysis of covariance was computed comparing the three program configuration with the four program configuration using the MRT pretest composite score as the covariate and the MRT posttest score as the dependent measure. The results indicated that viewing three programs produced better achievement than viewing four programs, $\underline{F}$ (1, 68) = 9.66, $\underline{p}$ < .003. A separate analysis was performed on the group of students that received the five program configuration because the data consisted of raw score data on the Reading Comprehension Subtest of the MRT rather than the total composite score. This analysis consisted of comparing pre- posttest gains using the Student's t-test. The results of this test indicated that the group receiving the five program configuration experienced a statistically significant achievement loss on the Reading Comprehension Subtest, t (23) = 5.11, $\underline{p}$ < .01. This finding was especially unexpected because the five program configuration also contained the ITV videotape program "Wordshop." These data suggest that more ITV videocassette program viewing was a factor in achievement declines on standardized tests. Perhaps, the program content was not in keeping with teaching basic skills and, as such, removed the kindergarten pupils from other classroom learning activities that may have been more instrumental in producing achievement gains. However, without further content analysis, this hypothesis must remain conjecture.

Table 10

Means (M) and Standard Deviations (SD) on the ITBS
At The First Grade Level for the Number of Programs
Viewed by Students Over the Year

Number of Programs Viewed*	MRT Pretest Percentile Scores N	M	SD	ITBS Posttest Grade Equivalent N	M	SD
Four	48	16.81	18.79	48	1.30	.46
Six	16	17.56	10.80	16	1.32	.40
Control (Zero)	18	8.61	10.36	18	1.03	.47

*Four Program Configuration: *All About You, Let's All Sing, Math Factory, and Primary Art.*

*Six Program Configuration: *All About You, Electric Company, Let's All Sing, Math Factory, Primary Art, and Sesame Street.*

Analysis of covariance were performed on the data summarized in Table 10. In each case, the MRT pretest represented in terms of percentile scores served as the covariate, the ITBS posttest which was represented in grade equivalents served as the criterion variable, and the treatment configuration served as the independent variable. In the first analysis, the four program configuration, (adjusted mean = 1.26) the six program configuration (adjusted mean = 1.27), and the control (adjusted mean = 1.17) were compared, and the results indicated that there were no significant differences between these groups, F (2, 74) < 1, $p < .51$. Furthermore, all the other pairwise comparisons also yielded non-significant tests: Four vs six, F (1, 57) < 1; Four vs control, F (1, 59) $= 1.28$, $p < .26$; six vs control, F (1, 31) < 1.

Table 11

Means (M) and Standard Deviations (SD) on the ITBS At the Second Grade Level for the Number of Programs Viewed by Students Over the Year

Number of Programs Viewed*	ITBS Pretest Grade Equivalent			ITBS Posttest Grade Equivalent		
	N	M	SD	N	M	SD
Six	28	1.52	.56	28	1.98	.83
Nine	40	1.42	.59	40	1.98	.79
Control	18	1.02	.20	18	1.61	.52

*Six Program Configuration: *All About You, Electric Company, Let's All Sing, Math Factory, Primary Art, and Sesame Street.*

*Nine Program Configuration: *All About You, Electric Company, First Films on Science, Let's All Sing, Math Factory, Primary Art, Sesame Street, Word Shop, and Cover-to-Cover.*

Analysis of covariance were performed on the data summarized in Table 11. In each instance, the ITBS pretest represented in grade equivalent scores served as the covariate, the ITBS posttest also represented in grade equivalent scores served as the criterion variable, and the treatment configurations served as the independent variable. In the first analysis, the six program configuration (adjusted mean = 1.79), the nine program configuration (adjusted mean = 1.92), and the control (adjusted mean = 2.03) were compared, and the results indicated that there were no significant differences, F (2, 80) = 1.76, p = .18. Subsequent pairwise comparisons (Nine vs six, F (1, 63) = 1.59, p = .21; Nine vs control, F (1, 55) < 1) were non-significant. However, for the comparison of the six program configuration (adjusted mean = 1.71) with the control (adjusted mean = 2.01), the control was shown to be significantly superior to the group that received the six program configuration, F (1, 41) = 4.29, p < .04.

Table 12

Means (M) and Standard Deviations (SD) on the ITBS At the Fourth Grade Level for the Number of Programs Viewed by Students Over the Year

Number of Programs Viewed*	ITBS Pretest Grade Equivalent N	M	SD	ITBS Posttest Grade Equivalent N	M	SD
Six	20	3.04	1.11	20	3.51	1.09
Control	25	3.02	1.12	25	3.77	1.14

*Six Program Configuration: *All About You, Math Factory, Why (K-3 level), Inside Out, Search for Science, and Why (4-6 level)*

For the data summarized in Table 12, an analysis of covariance was performed where the pretest expressed in grade equivalent scores served as the covariate, the posttest expressed in grade equivalent scores served as the criterion variable, and the treatment configurations as the independent variable. The results of the analysis indicated that although the adjusted mean of the control group was greater than those of the six program configuration group (3.78 vs 3.50), the difference was not statistically significant (F (1, 41) = 2.87, $p < .09$) at the conventionally accepted 5% level.

Additional Information:

AR77-081-9-9 Evaluation of the Instructional Television/Video tape Pilot Project, 1976-77, 1977, James P. Papay.

APPENDIX A

Instructional Television Questionnaire
Department of Research and Evaluation

General Instructions: This questionnaire asks you to answer some statements bout Open Broadcast or Videocassette ITV usage in your classroom. The information provided by you will be used to gather information such as types of program, hours of instruction, and your opinions on instructional effectiveness that will impact the decision-making process in the District. Please answer each question by circling or writing in the answer to the right of each statement that best provides your response to the statement. A questionnaire must be filled out for *each* program viewed. Return your completed questionnaires to your school librarian. [Brackets to the left of the questions are for keypunching purposes only]. All answers are strictly confidential

[1-3] Your schools' 3-digit TEA number ☐☐☐

[4-5] Program name (obtained from Table of Contents from the Teacher Quick Reference Guide; for example, "All About You" is ☐☐) ☐☐

[6-7] Lesson number (same source; for example, in the program "All About You" is a lesson called "Getting the Message" coded as ☐☐) ☐☐

[8] Type of broadcast:
1 - Open 2 - Cassette

[9] General category of pupils viewing program:

1 - Elementary, including Kindergarten
2 - Middle School
3 - Senior High School

Numbers of pupils viewing program by grade level

[10-12]	K	☐☐☐	[31-33]	7th	☐☐☐
[13-15]	1st	☐☐☐	[34-36]	8th	☐☐☐
[16-18]	2nd	☐☐☐	[37-39]	9th	☐☐☐
[19-21]	3rd	☐☐☐	[40-42]	10th	☐☐☐
[22-24]	4th	☐☐☐	[43-45]	11th	☐☐☐
[25-27]	5th	☐☐☐	[46-48]	12th	☐☐☐
[28-30[	6th	☐☐☐			

[49-51] Program length in minutes ☐☐☐

[52] Program was used primarily for:

1 - review; 2 - enrichment; 3 - instructional;
4 - recreational (reward); 5 - make-up; 6 - other

[53] Program selection was on the basis of:

1 - title or Teacher Quick Reference Guide
2 - teacher preview
3 - professional discussion
4 - previous class use

[54] Program availability was:

1 - available as needed
2 - available but with scheduling problems
3 - unavailable

[55-57] Your assessment of the percentage of agreement of the program content with District baseline objectives ☐☐☐

[58-60] Your assessment of the percentage of agreement of the program content with your course objectives ☐☐☐

[61] Viewing equipment was:

1 - available as needed
2 - available but with scheduling problems
3 - unavailable

[62] Viewing equipment was:

1 - operational when needed
2 - in need of fine tuning
3 - non-functional requiring outside technical repair

[63] The use of ITV in its present form is:

1 - execellent 2 - good 3 - poor

[64] Open Broadcast ITV reception in your school is

1 - excellent 2 - good 3 - poor

[65] To best serve your instructional needs ITV program should be:

1 - available as now in a fixted format (i.e., sequentially presented week-by-week)

2 - available in a random format (i.e., whenever you need them without regard to any sequence)

3. discontinued as a waste of time

[66-68] Class section number ☐☐☐

[69-79] Your Social Security Number ☐☐☐-☐☐-☐☐☐☐

[80] Was the teacher manual used in conjunction with the telecast?

1 - yes 2 - no

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Abstract

Evaluation of the 1976-77
Emergency School Aid Act
Special I Project

Evaluators: Wayne E. Carter
Sally Akers
Kathy Cannon
Patricia Dagley
Sharon Haywood
Napoleon Mitchell

Objectives of the Program: During the 1976-77 school year, the Emergency School Aid Act (ESAA) Special I grant provided the Dallas Independent School District (DISD) with funds to aid in overcoming problems inherent in the implementation of the April, 1976, court order for desegregation of DISD schools. The ESAA Special I Project consisted of three components: Basic Instruction, which included remedial reading and mathematics programs in the 27 impacted 4-6 intermediate centers and 12 of the 7-8 middle schools and a Bilingual Education Program in 10 of the impacted 4-6 intermediate centers; Support Services, which included Guidance and Counseling for grades 4-6 in the impacted intermediate schools, Community Affairs and Evaluation; and Administrative Services.

Students enrolled in the reading and mathematics programs were expected to demonstrate improved performance in achievement. The students enrolled in the bilingual program were expected to improve their communication skills in a second language (English). The Community Affairs component was to obtain citizen input and involve parents and patrons in the 4-6 intermediate centers and 7-8 middle schools. A Guidance and Counseling Program was established on each of the impacted 4-6 intermediate school campuses to focus on the instructional and human relations services based on the individual campus needs of students who were affected by the desegregation plan.

Purpose of the Evaluation: The purpose of this evaluation was to delineate, obtain, and provide useful, descriptive, and informative feedback for decision-making. To accomplish this, process evaluation reports, a context evaluation report, reviews of the literature, and a product evaluation report were written and presented to program managers.

Sample: The impacted 4-6 intermediate-centers which were designated as ESAA schools were: J. Q. Adams, Bayles, A. W. Blanton, D. G. Burnet, R. C. Burleson, F. P. Caillet, S. S. Conner, J. C. Dorsey, S. C. Foster, N. Hawthorne, L. L. Hotchkiss, J. Ireland, Lakewood, H. W. Longfellow, H. Marcus, J. J. Pershing, Preston Hollow, M. T. Reilly, Reinhardt,

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D. D. Rogers, A. Sanger, San Jacinto, G. B. Truett, Walnut Hill, S. Williams, E. Rowe, and Rylie. With the exception of Bayles, Lakewood, M. T. Reilly, Reinhardt, and A. Sanger, the impacted 4-6 intermediate centers were also designated as Title I schools. Students who scored below grade level in reading comprehension or mathematics were eligible for remedial services in that program. Students who were designated as "Limited English Speaking Ability" (LESA) at J. Q. Adams, D. G. Burnet, R. C. Burleson, F. P. Caillet, J. C. Dorsey, S. C. Foster, L. L. Hotchkiss, H. Marcus, Preston Hollow, and D. D. Rogers were eligible for Bilingual Remedial Services. Pretest data were available on 7,365, 7,384 and 11,395 students, respectively, on vocabulary, comprehension, and mathematics. Posttest data were available on 7,904, 7,909, and 10,330 students respectively, in vocabulary, comprehension, and mathematics. Test data were available on both the pre- and posttests for 6,374, 6,381, and 9,587 students, respectively, on vocabulary, comprehension, and mathematics.

The 7-8 middle schools designated to receive assistance under ESAA were: T. W. Browne, E. H. Cary, F. F. Florence, W. H. Gaston, W. E. Greiner, R. T. Hill, J. B. Hood, J. L. Long, T. C. Marsh, L. V. Stockard, E. D. Walker, H. Stone. Students in these schools were eligible for ESAA sponsored programs in reading if they scored two or more years below grade placement or mathematics if they scored below grade placement. Pretest data were available on 3,166, 3,159, 10,931 on vocabulary, reading comprehension, and mathematics respectively. Posttest data were available on 2,202, 2,221, and 9,289 on vocabulary, comprehension, and mathematics, respectively. Test scores were available on both pre- and posttests for 1,934, 1,929, and 8,852 students, respectively, in vocabulary, comprehension and mathematics.

Evaluation Design: The major evaluation questions were:

1. What were the characteristics of the ESAA Special I Project as it was implemented in each school?
2. Was the ESAA Special I Project implemented as designed?
3. What was the distribution of gains in achievement on standardized instruments from pre- to posttest for students enrolled in the ESAA Special I programs?
4. What were the differences in performances between students enrolled in targeted reading and mathematics programs for students enrolled in Title I schools, Title I - ESAA schools, and ESAA only schools and peer-tutoring programs in ESAA schools in grades 4-6?
5. What were the differences in performance between students enrolled in the ESAA mathematics and reading programs and students enrolled in the mathematics and reading peer-tutoring programs in grades 7-8?
6. Did the posttest performance of students on standardized reading and mathematics tests exceed the expected performance for a nontreatment condition?

7. What were the national trends in remedial reading and mathematics courses at the intermediate and middle school?

The methods utilized in evaluating these questions are listed below:

1-2. Questionnaires and classroom observations were utilized in answering these questions. Two separate questionnaires were mailed to resource teachers in November and February. A random sample of 25% of the ESAA reading and mathematics classrooms in the 7-8 middle schools were selected for observation.

3-6. All reading students, with the exception of the fifth-grade students in the five ESAA-only schools, were pretested on the reading comprehension and vocabulary subtests of the Iowa Tests of Basic Skills (ITBS) in the fall. All reading students were posttested in the spring on the same instruments. All reading students in the 7-8 middle schools were administered the reading subtest of the Everyday Skills Test as a pretest in the fall and as a posttest in the spring. All students enrolled in the ESAA-sponsored mathematics program were administered the Shaw-Heihle Computation Test as a pretest in the fall and as a posttest in the spring. Students in the schools that were designated as both ESAA and Title I schools were tested during the Title I testing program and the data were gathered from their data files.

7. Literature reviews were conducted by evaluation personnel to determine the national trends in reading and mathematics.

Evaluation Results:

1. The ESAA Special I Project consisted of seven components: (a) basic instruction in reading and mathematics for 27 intermediate schools (4-6), (b) basic instruction in reading and mathematics for 12 middle schools, (c) a bilingual education program in 10 intermediate centers, (d) a guidance and counseling program in the 27 intermediate centers, (e) a community affairs program in the 27 intermediate centers, (f) evaluation, and (g) administration.

2. The ESAA Special I Project was implemented as designed; however implementation problems were encountered. These problems involved difficulty in employment of personnel and subsequent late start-up dates in many schools.

3. Table 1 presents the intermediate schools, grades, and ESAA programs where significant differences in achievement test scores were noted. For the reading program in the intermediate schools, fourth-grade students at 22 of the 27 participating schools (Adams, Blanton, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Hotchkiss, Ireland, Longfellow, Marcus, Pershing, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie); fifth-grade students in 22 schools (Adams, Blanton, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Ireland, Longfellow, Marcus, Pershing, Preston Hollow, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie); and sixth-grade students in 23 schools (Adams, Blanton, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Ireland, Longfellow, Marcus, Pershing, Preston Hollow, Reilly, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie) demonstrated significant gains in vocabulary achievement over pretest scores. Fourth-grade students at 23 schools (Adams, Blanton, Burnet, Burleson, Conner, Dorsey, Foster, Hawthorne, Hotchkiss, Ireland, Lakewood, Longfellow, Marcus, Pershing, Preston Hollow, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie); fifth-grade students at 22 schools (Adams, Blanton, Burnet, Burleson, Caillet, Dorsey, Foster, Hawthorne, Hotchkiss, Ireland, Longfellow, Marcus, Pershing, Preston Hollow, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie); and sixth-grade students in 23 schools (Adams, Blanton, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Hotchkiss, Longfellow, Marcus, Pershing, Preston Hollow, Reilly, Reinhardt, Rogers, San Jacinto, Truett, Walnut Hill, Williams, Rowe, and Rylie) demonstrated significant gains over pretest scores in reading comprehension. The average gains per month of instruction for these students ranged from -0.3 months per month (grade 6 at Sanger) to 1.5 months per month (grade 6 students at Foster) in vocabulary and from -0.1 months per month (grade 5 students at Bayles and Reilly) to 1.4 months per month (grade 6 students at Sanger) in reading comprehension.

Students enrolled in the mathematics program in the 27 intermediate schools were tested on the Shaw-Heihle Computation Test. The results of this testing indicated that statistically significant gains were obtained in all grades in each of the 27 intermediate schools, except the fourth grade at Williams where sufficient data were not available. The average gains per month of instruction in the 27 intermediate schools ranged from 0.4 months per month (grade 5 students at Longfellow and San Jacinto who were tested on level 5-6) to 2.3 months per month (grade 6 students at Alex Sanger who were tested on level 5-6).

Table 1

Intermediate Schools Demonstrating Significant Differences in Test Scores

	Vocabulary			Comprehension			Mathematics		
School/Grade	4	5	6	4	5	6	4	5	6
J. Q. Adams	X	X	X	X	X	X	X	X	X
Bayles[a]		-	-		-	-	X	X	X
A. W. Blanton	X	X	X	X	X	X	X	X	X
D. G. Burnet	X	X	X	X	X	X	X	X	X
R. C. Burleson	X	X	X	X	X	X	X	X	X
F. P. Caillet	X	X	X		X	X	X	X	X
S. S. Conner	X	X	X	X		X	X	X	X
J. Dorsey	X	X	X	X	X	X	X	X	X
S. C. Foster	X	X	X	X	X	X	X	X	X
N. Hawthorne	X	X	X	X	X	X	X	X	X
L. L. Hotchkiss	X			X	X		X	X	X
J. Ireland	X	X	X	X	X	X	X	X	X
Lakewood[a]		-	-	X	-	-	X	X	X
H. W. Longfellow	X	X	X	X	X	X	X	X	X
H. Marcus	X	X	X	X	X	X	X	X	X
J. J. Pershing	X	X	X	X	X	X	X	X	X
Preston Hollow		X	X	X	X	X	X	X	X
M. T. Reilly[a]	-	-	X	-	-	X	X	X	X
Reinhardt[a]	X	X	X	X	X	X	X	X	X
D. D. Rogers	X	X	X	X	X	X	X	X	X
A. Sanger[a]	-	-		-	-		X	X	X
San Jacinto	X	X	X	X	X	X	X	X	X
G. B. Truett	X	X	X	X	X	X	X	X	X
Walnut Hill	X	X	X	X	X	X	X	X	X
S. Williams	X	X	X	X	X	X	-	X	X
E. Rowe	X	X	X	X	X	X	X	X	X
Rylie	X	X	X	X	X	X	X	X	X
BILINGUAL SCHOOLS:									
J. Q. Adams	-	-	-	-	-	-			
D. G. Burnet	-	-	-	-	-	-			
R. C. Burleson		X	-	X	X	-			
F. P. Caillet	-	-	-	-	-	-			
J. Dorsey	-	-	-	-	-	-			
S. C. Foster	X	X	X	X	X	X			
L. L. Hotchkiss	X					-			
H. Marcus	X	X				-			
Preston Hollow	-	X		X	X	X			

Note. An "X" indicates that a significant difference was observed. A "-" indicates that insufficient data were available to effect an analysis. A blank indicates that no significant differences were noted.

[a] Schools designated as ESAA-only schools

Fourth-grade students enrolled in the ESAA Bilingual Education Program at Foster, Hotchkiss, and Marcus; fifth-grade students at Burleson, Foster, Marcus, and Preston Hollow; and sixth-grade students at Foster demonstrated significant gains in achievement on the vocabulary subtest of the ITBS. Fourth-grade students in the ESAA Bilingual Education Program at Burleson, Foster and Preston Hollow; and fifth-grade students at Burleson, Foster, and Preston Hollow; and sixth-grade students at Foster and Preston Hollow demonstrated significant gains in achievement on the Reading Comprehension Subtest of the ITBS.

Tables 2 and 3 present the descriptive statistics for posttest scores in the 27 intermediate schools. Although significant gains in achievement were noted in many schools, the students in nearly all of these schools were performing below grade placement on the posttest. As indicated in Table 2, the mean posttest scores for fourth-grade students ranged from 2.3 at Bayles to 3.8 at Blanton in vocabulary and from 2.4 at Bayles to 3.8 at Blanton and Rogers in reading comprehension. For fifth-grade students, the mean posttest scores ranged from 3.6 at Preston Hollow to 4.4 in Foster in vocabulary and from 3.5 at Preston Hollow to 4.4 at Foster and Rowe in reading comprehension. For sixth-grade students, the scores ranged from 2.4 at Sanger to 5.4 at Rogers and from 2.5 at Sanger to 5.4 at Rogers in reading comprehension.

Students enrolled in the ESAA Bilingual program were also performing below grade level on the posttest. As indicated in Table 2, the mean posttest grade equivalent scores for fourth-grade students ranged from 2.4 at Hotchkiss to 3.1 at Adams in vocabulary and from 2.5 at Hotchkiss to 3.3 at Adams in reading comprehension. For fifth-grade students the scores ranged from 2.9 at Marcus to 3.6 at Burleson and Foster in vocabulary and from 3.0 at Marcus to 3.7 at Foster in reading comprehension. Sixth grade scores ranged from 3.1 at Dorsey to 4.3 at Preston Hollow in vocabulary and from 3.4 at Hotchkiss to 4.5 at Burleson and Preston Hollow in reading comprehension.

Students enrolled in the ESAA mathematics program in the 27 intermediate schools also demonstrated posttest scores that were below grade level in spite of the significant gains made in grade equivalent scores on the Shaw-Hiehle. As indicated in Table 3, the scores for mean posttest grade equivalent scores for mathematics students in the fourth grade ranged from 2.6 for students tested on Level 1-2 at Burleson to 6.2 for students tested on Level 5-6 at Burleson.

Table 2

Posttest Descriptive Statistics for the 27 Intermediate Schools

School	ESAA Reading Program						ESAA Bilingual Program					
	Vocabulary			Reading Comprehension			Vocabulary			Reading Comprehension		
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
						Grade 4						
J. Q. Adams	165	3.1	1.06	166	3.3	1.06	10	3.1	0.82	10	3.3	0.93
Bayles[a]	20	2.3	0.52	20	2.4	0.57						
A. W. Blanton	101	3.8	1.25	101	3.8	1.28						
D. G. Burnet	175	3.2	1.21	175	3.3	1.27	4			4		
R. C. Burleson	119	3.3	0.97	119	3.3	1.00	18	2.9	1.01	18	3.2	0.86
F. P. Caillet	95	3.3	1.04	95	3.3	1.07	6			6		
S. S. Conner	56	3.5	1.31	56	3.5	1.17	1			1		
J. Dorsey	67	3.5	1.12	67	3.4	1.20						
S. C. Foster	107	3.5	1.09	108	3.6	1.10	38	3.0	0.71	38	3.2	0.86
N. Hawthorne	125	3.4	1.12	125	3.6	1.14						
L. L. Hotchkiss	83	3.1	1.05	84	3.1	0.99	18	2.4	0.61	19	2.5	0.69
J. Ireland	101	3.2	1.02	101	3.2	1.02						
Lakewood[a]	41	2.9	0.80	40	3.1	0.73						
H. W. Longfellow	105	3.2	1.15	105	3.3	1.29						
H. Marcus	93	3.1	1.06	94	3.2	1.09	41	2.6	0.69	42	2.8	0.72
J. J. Pershing	70	3.0	1.22	69	3.0	1.17						
Preston Hollow	37	2.9	1.14	37	2.9	1.14	19	3.0	0.82	20	2.7	1.03
M. T. Reilly[a]	5			5								
Reinhardt[a]	124	2.9	0.95	124	2.8	0.79						
D. D. Rogers	139	3.6	1.26	139	3.8	1.33						

(continued)

Table 2 (continued)

Posttest Descriptive Statistics for the 27 Intermediate Schools

	ESAA Reading Program						ESAA Bilingual Program					
	Vocabulary			Reading Comprehension			Vocabulary			Reading Comprehension		
School	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
A. Sanger[a]	--	--	--	--	--	--						
San Jacinto	120	3.4	1.15	120	3.5	1.19						
G. B. Truett	109	3.6	1.13	109	3.5	1.13						
Walnut Hill	59	3.2	1.05	59	3.4	1.19						
S. Williams	111	3.6	1.42	111	3.6	1.36						
E. Rowe	160	3.2	1.05	159	3.3	1.14						
Rylie	179	3.4	1.12	178	3.5	1.09						
Grade 5												
J. Q. Adams	157	4.0	1.47	157	4.0	1.31	8			8		
Bayles[a]	6			6								
A. W. Blanton	87	4.1	1.41	87	4.1	1.34						
D. G. Burnet	206	3.9	1.56	206	4.1	1.48	2			2		
R. C. Burleson	106	3.9	1.20	106	3.8	1.28	13	3.6	0.78	13	3.6	0.92
F. P. Caillet	92	3.9	1.28	92	3.9	1.40	8			8		
S. S. Conner	63	4.2	1.46	63	3.9	1.42						
J. Dorsey	53	3.8	0.99	53	3.9	1.16	1			1		
S. C. Foster	124	4.4	1.36	124	4.4	1.23	39	3.6	1.11	39	3.7	1.14
N. Hawthorne	122	3.9	1.25	122	4.0	1.29						
L. L. Hotchkiss	62	3.7	1.27	62	3.6	1.35	23	3.0	1.19	23	3.1	1.45
J. Ireland	124	3.7	1.33	124	3.7	1.33						
Lakewood[a]	3			3								

(continued)

Table 2 (continued)

Posttest Descriptive Statistics for the 27 Intermediate Schools

	ESAA Reading Program						ESAA Bilingual Program					
	Vocabulary			Reading Comprehension			Vocabulary			Reading Comprehension		
School	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
H. W. Longfellow	115	3.7	1.34	115	3.8	1.29						
H. Marcus	100	3.9	1.33	100	4.0	1.37	41	2.9	0.82	41	3.0	0.90
J. J. Pershing	72	3.9	1.54	72	3.9	1.36						
Preston Hollow	68	3.6	1.36	68	3.5	1.26	26	3.4	0.18	26	3.3	0.95
M. T. Reilly[a]	8			8								
Reinhardt[a]	124	3.8	1.08	124	3.8	1.04						
D. D. Rogers	132	4.2	1.35	131	4.2	1.33						
A. Sanger	--	--	--	--	--	--						
San Jacinto	151	4.0	1.99	154	3.9	1.19						
G. B. Truett	99	4.0	1.33	100	4.1	1.22						
Walnut Hill	66	4.0	1.55	66	4.0	1.36						
S. Williams	104	3.8	1.52	103	3.8	1.48						
E. Rowe	164	4.2	1.25	164	4.4	1.34						
Rylie	171	4.0	1.14	171	4.0	1.17						
Grade 6												
J. Q. Adams	173	4.4	1.67	174	4.6	1.43	7			7		
Bayles[a]	17	3.4	0.79	17	3.5	0.59						
A. W. Blanton	99	5.2	1.46	99	5.2	1.24						
D. G. Burnet	199	4.6	1.78	199	4.6	1.71	--	--	--	--	--	--
R. C. Burleson	97	4.8	1.62	97	4.9	1.40	10	3.3	0.96	10	4.5	1.26
F. P. Caillet	120	5.0	1.66	120	5.1	1.61	6			6		

(continued)

Table 2 (continued)

Posttest Descriptive Statistics for the 27 Intermediate Schools

	ESAA Reading Program						ESAA Bilingual Program					
	Vocabulary			Reading Comprehension			Vocabulary			Reading Comprehension		
School	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
S. S. Conner	65	5.1	2.09	65	5.1	1.81						
J. Dorsey	72	4.7	1.47	72	4.7	1.23	4	3.1	0.90	4		
S. C. Foster	157	5.2	1.69	157	5.3	1.33	25	4.1	1.58	25	4.4	0.79
N. Hawthorne	96	4.7	1.80	96	4.8	1.38						
L. L. Hotchkiss	73	4.5	1.53	74	4.6	1.44	16	3.6	0.98	17	3.4	1.13
J. Ireland	120	4.7	1.63	120	4.7	1.63						
Lakewood[a]	4			4								
H. W. Longfellow	132	4.1	1.62	132	4.2	1.53						
H. Marcus	96	4.3	1.42	96	4.3	1.27	37	3.6	1.33	37	3.7	1.14
J. J. Pershing	87	4.8	1.95	87	4.5	1.68						
Preston Hollow	62	4.2	1.47	61	4.3	1.26	24	4.3	1.47	24	4.5	1.11
M. T. Reilly[a]	27	3.4	0.84	27	3.2	0.72						
Reinhardt[a]	108	4.7	1.47	108	4.5	1.24						
D. D. Rogers	142	5.4	1.83	144	5.4	1.41						
A. Sanger	48	2.4	0.69	47	2.5	0.62						
San Jacinto	183	4.5	1.58	184	4.5	1.33						
G. B. Truett	87	4.7	1.58	87	4.7	1.26						
Walnut Hill	82	5.0	1.92	81	5.0	1.67						
S. Williams	117	4.4	1.88	118	4.6	1.76						
E. Rowe	131	5.0	1.43	131	5.1	1.29						
Rylie	165	4.7	1.58	165	4.7	1.36						

[a] Schools designated as ESAA-only schools.

Note. Descriptive statistics were not computed for n < 10.

Table 3

Descriptive Statistics for the Shaw-Hiehle Computation Test for the 27 Intermediate Schools

	Test	Grade 4			Grade 5			Grade 6		
School	Level	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
J. Q. Adams	3-4	131	3.7	0.95						
	5-6				232	4.5	0.86	70	4.9	0.91
Bayles[a]	3-4	96	4.3	1.25						
	5-6				101	5.0	1.29	77	5.9	1.73
A. W. Blanton	3-4	85	4.0	0.88						
	5-6				85	4.4	0.81	99	5.1	1.04
D. G. Burnet	3-4	149	3.8	1.12						
	5-6				190	4.6	0.91	243	5.5	1.21
R. C. Burleson	1-2	16	2.6	0.52	9			7		
	3-4	120	4.5	0.75	101	4.9	0.79	70	4.8	0.69
	5-6	10	6.2	0.57	6			19	6.2	0.75
F. P. Caillet	3-4	112	3.9	0.84						
	5-6				140	4.6	1.00	176	5.8	1.22
S. S. Conner	3-4	60	3.8	1.12						
	5-6				83	4.6	0.84	87	5.7	1.05
J. Dorsey	3-4	71	4.2	0.97	54	4.7	0.78	41	4.8	0.93
	5-6				8			50	5.8	0.81
S. C. Foster	3-4	110	3.7	1.27						
	5-6				154	4.8	1.02	172	5.3	1.11
N. Hawthorne	3-4	126	4.1	0.83	69	4.4	0.80			
	5-6				77	5.5	0.86	153	5.7	1.21
L. L. Hotchkiss	3-4	88	4.0	1.08						
	5-6				109	4.6	0.72	109	5.6	1.07
J. Ireland	3-4	71	3.9	0.85						
	5-6				95	4.4	0.64	63	5.1	1.05
Lakewood[a]	3-4	114	3.9	1.00	90	4.3	0.92	25	3.7	1.32
	5-6				81	5.5	0.72	127	5.5	1.00
H. W. Longfellow	3-4	104	3.4	1.00						
	5-6				102	3.9	0.76	169	5.2	1.23

(continued)

Table 3 (continued)

Descriptive Statistics for the Shaw-Hiehle Computation Test for the 27 Intermediate Schools

School	Test Level	Grade 4			Grade 5			Grade 6		
		N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.
H. Marcus	3-4	107	4.0	0.94						
	5-6				105	4.8	0.79	101	5.4	0.79
J. J. Pershing	3-4	93	3.2	1.00	21	3.2	1.23	25	3.8	0.89
	5-6				132	4.4	0.95	135	5.3	1.48
Preston Hollow	3-4	66	4.7	1.29						
	5-6				69	5.3	1.04	80	6.1	1.73
M. T. Reilly[a]	3-4	164	4.5	1.05	12	4.9	1.10			
	5-6				177	4.9	0.97	249	5.5	1.31
Reinhardt[a]	3-4	112	3.5	1.02	25	2.9	0.80			
	5-6				195	5.0	1.02	193	5.6	1.16
D. D. Rogers	3-4	152	4.0	0.89	119	4.2	0.92	132	4.6	0.89
	5-6				28	5.7	0.67	45	6.4	1.05
A. Sanger[a]	3-4	109	4.1	0.92						
	5-6				180	4.9	1.05	188	5.7	1.32
San Jacinto	3-4	150	4.2	1.23						
	5-6				172	4.4	0.95	151	5.4	1.21
G. B. Truett	3-4	111	4.3	1.23	15	3.5	0.82	26	3.9	0.86
	5-6				85	5.7	1.43	107	5.2	0.84
Walnut Hill	3-4	71	3.6	1.21						
	5-6				91	4.5	1.05	121	5.2	1.37
S. Williams	3-4	8								
	5-6				32	5.6	0.76	73	6.3	1.19
E. Rowe	3-4	194	4.0	1.05						
	5-6				221	4.9	1.10	181	5.0	1.25
Rylie	3-4	142	3.9	0.78	138	4.5	0.89	94	4.8	1.06
	5-6				42	4.4	0.59	85	5.0	0.95

Note. Descriptive statistics were not computed for n < 10.

[a] Schools designated as ESAA-only schools

Fifth-grade students demonstrated mean scores ranging from 2.9 for students tested on Level 3-4 at Reinhardt to 5.6 for students tested on Level 5-6 at Williams. Sixth-grade students demonstrated mean scores ranging from 3.7 for students tested on Level 3-4 at Lakewood to 6.4 for students tested on Level 5-6 at Rogers.

Table 4 presents the schools, grades, and programs in the 12 middle schools where significant differences were found. Seventh-grade students enrolled at 10 of the 12 participating schools (Browne, Cary, Florence, Greiner, Hill, Long, Marsh, Stockard, Walker and Stone) and eighth-grade students at five schools (Cary, Florence, Greiner, Long, and Stone) demonstrated significant gains over pretest scores in vocabulary. In reading comprehension, seventh-grade students at nine schools (Browne, Cary, Florence, Gaston, Hill, Long, Marsh, Stockard, and Stone) and eighth-grade students at one school (Florence) demonstrated significant gains over pretest scores. At the seventh-grade level the gains in achievement per month of instruction ranged from 0.1 months per month (Gaston) to 1.3 months per month (Stone) in vocabulary and from -0.1 months per month (Greiner) to 1.0 months per month (Florence) in comprehension. At the eighth-grade level the gains in achievement per month of instruction ranged from -0.3 (Walker) to 0.9 (Greiner) in vocabulary and from -0.6 (Browne, Greiner, and Hill) to 0.6 (Florence) in reading comprehension.

Analysis of the Shaw-Hiehle data indicated that students enrolled at each grade at all 12 participating schools made significant gains in mathematics computation. The average gains in achievement per month of instruction ranged from 0.4 months per month (Greiner and Walker students tested on Level 3-4) to 2.5 (Marsh students tested on Level 3-4) for seventh-grade students and from -0.4 (Greiner students tested on Level 3-4) to 2.0 (Cary students tested on Level 7-12) at the eighth-grade level.

Analysis of the Everyday Skills Reading Subtest data indicated that significant gains were in the number of objectives mastered from pre- to posttest by all seventh-grade students, except those at Marsh and Hood, and by all eighth-grade students, except those at Marsh. Marsh students were not included in the analysis because of the lack of pretest scores.

Table 4

Middle Schools Demonstrating Significant Differences on Test Scores

School/Grade	ITBS Vocabulary 7	ITBS Vocabulary 8	ITBS Comprehension 7	ITBS Comprehension 8	Everyday Skills Reading 7	Everyday Skills Reading 8	Shaw-Hiehle Mathematics 7	Shaw-Hiehle Mathematics 8
T. W. Browne	X		X		X	X	X	X
E. H. Cary	X	X	X		X	X	X	X
F. F. Florence	X	X	X	X	X	X	X	X
W. H. Gaston			X		X	X	X	X
W. E. Greiner	X	X			X	X	X	X
R. T. Hill	X		X		X	X	X	X
J. B. Hood						X	X	X
J. L. Long	X	X	X		X	X	X	X
T. C. Marsh	X	-	X	-	-	-	X	X
L. V. Stockard	X		X		X	X	X	X
E. D. Walker	X				X	X	X	X
H. Stone	X	X	X		X	X	X	X

Table 5 presents descriptive statistics for posttest scores for the 12 middle schools. As indicated in this table, the mean posttest scores for seventh-grade students ranged from 3.4 at Marsh to 4.5 at Long in vocabulary, from 3.6 at Greiner and Marsh to 4.4 at Long in reading comprehension, and from 3.6 for Hood students tested on Level 3-4 to 6.2 for Greiner and Stone students tested on Level 7-12. The mean posttest scores for eighth-grade students ranged from 3.7 at Walker to 5.6 at Long in vocabulary, from 3.7 at Greiner to 5.3 at Long in reading comprehension, and from 3.2 for Marsh students tested on Level 3-4 to 7.2 for Cary students tested on Level 7-12.

4. Table 6 presents summary statistics for comparisons among intermediate school program configurations. Comparisons were made on comprehension and vocabulary scores between schools designated as Title I-only, Title I-ESAA, and ESAA-only. No meaningful significant differences by grade across program configurations were found. Comparisons among configurations on mathematics scores could not be made because of incompatible test data.

Tables 7 and 8 present descriptive statistics for students enrolled in reading peer-tutoring and mathematics peer-tutoring programs in the intermediate schools.

Students enrolled in the reading-tutoring program were tested on the Gates-MacGinitie Reading Tests. Tutees enrolled in this program at Reilly and Truett demonstrated significant gains in vocabulary and reading comprehension at both schools. Tutors enrolled in the program at Reilly demonstrated significant gains in both vocabulary and reading. Students enrolled in the mathematics tutoring program as tutees demonstrated significant gains at Truett and students enrolled as tutors at both Pershing and Truett demonstrated significant gains.

Table 5

Descriptive Statistics for Posttest Scores for the 12 Middle Schools

	ITBS Vocabulary			ITBS Comprehension			Shaw-Hiehle Mathematics			
School	N	Mean	S.D.	N	Mean	S.D.	Level	N	Mean	S.D.
				Grade 7						
T. W. Browne	110	4.0	1.27	113	4.0	1.08	3-4	19	4.2	1.25
							7-12	415	5.6	1.49
E. H. Cary	157	4.3	1.11	150	3.9	1.06	7-12	363	6.4	1.70
F. F. Florence	153	3.8	1.42	174	4.1	1.12	3-4	59	4.2	1.13
							7-12	449	6.0	1.75
W. H. Gaston	85	3.6	1.03	85	3.9	0.95	3-4	2		
							7-12	448	5.4	1.73
W. E. Greiner	91	3.9	1.11	90	3.6	1.08	3-4	42	3.9	0.92
							7-12	297	6.2	1.83
R. T. Hill	45	3.7	1.12	42	3.7	0.99	3-4	42	3.7	1.15
							7-12	326	6.1	1.62
J. B. Hood	37	4.2	1.24	34	4.1	1.05	3-4	49	3.6	1.22
							7-12	443	5.9	1.89
J. L. Long	134	4.5	1.32	130	4.4	1.03	3-4	29	4.4	1.34
							7-12	349	6.0	[illegible].53
T. C. Marsh	105	3.4	0.76	101	3.6	0.80	3-4	19	4.6	7.00
							7-12	393	6.0	1.90
L. V. Stockard	84	3.9	1.23	84	3.9	0.98	7-12	458	5.4	1.51
E. D. Walker	153	3.8	1.29	154	4.1	1.20	3-4	93	4.0	0.97
							7-12	271	5.7	1.54
H. Stone	156	4.0	1.26	160	4.0	1.07	7-12	211	6.2	1.61

(continued)

Table 5 (continued)

Descriptive Statistics for Posttest Scores
for the 12 Middle Schools

	ITBS Vocabulary			ITBS Comprehension			Shaw-Hiehle Mathematics			
School	N	Mean	S.D.	N	Mean	S.D.	Level	N	Mean	S.D.
				Grade 8						
T. W. Browne	45	4.6	1.41	44	4.4	1.11	3-4	19	4.4	1.60
							7-12	449	6.3	1.78
E. H. Cary	112	4.7	1.30	109	4.5	0.95	7-12	300	7.2	1.90
F. F. Florence	135	5.1	1.61	146	5.0	1.18	3-4	41	4.8	1.27
							7-12	412	6.6	2.03
W. H. Gaston	56	4.2	1.17	55	4.6	1.12	7-12	418	6.2	1.98
W. E. Greiner	58	4.2	1.21	56	3.7	1.06	3-4	21	3.8	1.31
							7-12	398	7.0	1.76
R. T. Hill	29	4.0	1.31	31	4.1	1.15	3-4	34	3.6	1.04
							7-12	290	6.5	1.76
J. B. Hood	24	5.4	1.64	26	5.0	1.37	3-4	29	4.1	1.25
							7-12	428	6.4	1.97
J. L. Long	199	5.6	1.68	196	5.3	1.48	3-4	10	4.4	0.81
							7-12	326	6.9	1.84
T. C. Marsh	2			2			3-4	10	3.2	0.75
							7-12	386	6.7	2.07
L. V. Stockard	73	4.2	1.18	70	4.6	1.03	7-12	410	6.3	5.01
E. D. Walker	69	3.7	1.09	72	4.5	0.84	3-4	34	3.7	1.04
							7-12	327	6.7	1.63
H. Stone	90	4.4	1.34	97	4.3	1.78	7-12	185	6.7	1.85

Note. Descriptive statistics were not computed for n < 10

Table 6

Summary Statistics for Program Configuration

		Vocabulary						Comprehension					
		Pretest			Posttest			Pretest			Posttest		
Configuration	Grade	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Title I Only	4	2393	2.6	0.91	2409	3.2	1.07	2393	2.6	0.83	2411	3.2	1.08
	5	2481	3.1	1.08	2420	3.7	1.18	2475	3.2	1.06	2414	3.7	1.19
	6	2844	3.8	1.24	2786	4.3	1.40	2846	3.9	1.23	2787	4.3	1.33
ESAA-Title I (22 schools)	4	2241	2.6	1.02	2376	3.3	0.88	2176	2.7	0.91	2377	3.4	1.16
	5	2376	3.4	1.25	2438	4.0	1.32	2316	3.4	1.12	2440	4.0	1.31
	6	2394	4.1	1.49	2603	4.6	1.16	2423	4.0	1.33	2552	4.8	1.47
ESAA Only (5 schools)	4	143	2.7	0.97	190	3.0	0.88	142	2.3	0.81	189	2.9	0.76
	5	104	3.3	0.99	141	3.7	1.05	102	3.3	0.94	141	3.7	1.02
	6	107	3.6	1.27	204	3.9	1.20	107	3.7	1.11	203	3.8	1.09

Table 7

Descriptive Statistics for Reading Tutoring Programs in Participating Intermediate Schools

School	Level	Pretest			Posttest			Difference			t Statistic	Months in Program	Avg. Gain per Month
		N	M	S.D.	N	M	S.D.	N	M	S.D.			
Tutees - Vocabulary Subtest													
Reilly	(B)	29	3.0	0.94	27	3.6	0.96	27	0.7	0.49	7.32*	4.9	1.4
Truett	(C)	72	2.4	0.83	71	2.7	1.02	70	0.3	0.60	3.90*	2.4	1.3
Tutors - Vocabulary Subtest													
Reilly	(D)	32	7.1	1.88	31	8.0	1.94	31	1.0	1.15	4.47*	4.3	2.3
Truett	(D)	47	5.9	2.32	47	6.2	2.26	46	0.2	0.98	1.07	2.3	0.9
Tutees - Comprehension Subtest													
Reilly	(B)	29	2.8	0.93	27	3.8	1.10	27	1.0	0.90	5.85*	4.9	2.0
Truett	(C)	69	2.2	0.76	71	2.5	0.91	67	0.3	0.68	3.28*	2.4	1.3
Tutors - Comprehension Subtest													
Reilly	(D)	32	7.0	2.61	31	8.9	2.88	31	1.8	1.94	5.12*	4.3	4.2
Truett	(D)	47	6.2	2.61	46	6.3	2.77	45	0.1	1.23	0.52	2.3	0.4

* $p < .05$

Table 8

Descriptive Statistics for Mathematics Tutoring Programs in Participating Intermediate Schools

		Pretest			Posttest			Difference			t Statistic	Months in Program	Avg. Gain per Month
School	Level	N	M	S.D.	N	M	S.D.	N	M	S.D.			
						Tutees							
Pershing	3-4	28	2.3	1.01	23	2.5	0.88	13	0.3	1.27	0.74	2.2	1.4
	5-6	7			12	3.0	0.72	3					
Truett	3-4	56	2.8	0.84	59	3.2	0.91	56	0.5	0.58	6.09*	2.1	2.4
						Tutors							
Pershing	3-4	22	4.6	0.64	22	4.8	0.70	18	0.3	0.28	4.96*	1.5	2.0
	5-6	47	4.8	1.02	46	5.5	1.31	43	0.6	0.96	4.26*	1.5	4.0
Truett	5-6	54	5.4	1.11	54	5.9	1.07	54	0.4	0.77	4.13*	2.0	2.0

*$p < .05$

Note. Descriptive statistics were not computed for N < 10.

5. Table 9 presents the descriptive statistics for students enrolled in reading peer-tutoring programs at participating middle schools. Significant gains in achievement were found for tutees at Browne, Gaston and Hill in both reading comprehension and vocabulary and for tutors at Browne and Hill in vocabulary and at Browne, Gaston, and Hill in reading comprehension.

   Table 10 presents the descriptive statistics for students ernolled in mathematics peer-tutoring programs at participating middle schools. Tutees tested on Level 3-4 at Browne, Florence, Gaston, Hill, Hood, Long, Walker and Stone and on Level 7-12 at Cary and Greiner demonstrated significant pretest to posttest gains. Tutors tested on Level 5-6 at Florence, Gaston, Hood, Long, Stone, and Walker and on Level 7-12 at Browne, Cary, Florence, Greiner, Hill, and Long demonstrated significant pretest to posttest gains.

   Table 11 presents comparisons between students enrolled in mathematics peer-tutoring programs and students enrolled in "regular" ESAA mathematics programs, where compatible scores were found. Students enrolled in peer-tutoring programs who did not demonstrate significantly different pretest grade equivalent scores but who demonstrated significantly higher posttest scores than their "regular" counterparts were found at T. W. Browne (Level 7-12) and E. H. Cary (Level 7-12) at the seventh-grade level and at T. W. Browne (Level 7-12), E. H. Cary (Level 7-12), R. T. Hill (Level 7-12) and H. Stone (Level 7-12) at the eighth-grade level. Seventh-grade students at W. H. Gaston who were tested on Level 7-12 demonstrated significantly higher posttest scores than did peer-tutoring students. While posttest scores for peer-tutoring students were significantly higher than those for "regular" students at W. E. Greiner (seventh grade), F. F. Florence (eighth grade, Level 7-12), W. E. Greiner (eighth grade), J. L. Long (eighth grade, Level 7-12), and E. D. Walker (eighth grade), pretest scores were also significantly higher, prohibiting meaningful analysis.

   Comparisons between reading students in peer-tutoring programs and "regular" ESAA programs could not be made because of incompatible test data.

Table 9

Descriptive Statistics for Reading Tutoring Programs in Participating Middle Schools

School	Test Level	Pretest N	Pretest Mean	Pretest Std.Dev.	Posttest N	Posttest Mean	Posttest Std.Dev.	Gain Scores N	Gain Scores Mean	Gain Scores Std.Dev.	t Statistic	Avg. Mths. in Program	Avg. Gains per Month
Tutees - Vocabulary													
Browne	(C)	82	2.8	0.98	54	3.1	1.20	53	0.4	0.77	3.77*	4.5	0.9
Gaston	(C)	76	2.4	0.95	79	2.9	1.35	71	0.5	1.03	4.40*	6.1	0.8
Hill	(C)	46	3.2	1.40	45	3.7	1.52	45	0.4	0.71	4.06*	5.7	0.7
Marsh	(C)	34	2.4	1.07	37	2.3	1.00	34	-0.1	1.00	-0.52	3.1	-0.3
Tutors - Vocabulary													
Borwne	(E)	81	7.8	2.39	61	8.8	2.22	60	0.9	1.81	3.84*	4.7	1.9
Gaston	(E)	99	7.9	2.34	60	8.6	2.10	59	0.3	1.81	1.27	6.4	0.5
Hill	(E)	59	8.4	2.05	49	8.9	2.48	49	0.6	1.65	2.50*	4.4	1.4
Marsh	(E)	52	8.8	2.24	44	8.4	2.89	44	-0.4	2.73	-0.87	3.2	-1.3
Tutees - Comprehension													
Browne	(C)	82	2.7	1.14	54	3.3	1.24	53	0.6	0.88	4.70*	4.5	1.3
Gaston	(C)	75	2.4	1.09	79	2.7	1.23	70	0.3	0.81	2.77*	6.1	0.5
Hill	(C)	40	3.2	1.29	45	3.8	1.30	39	0.5	0.72	4.72*	5.7	0.9
Marsh	(C)	32	2.7	0.91	36	2.4	0.72	32	-0.3	0.99	-1.92	3.1	-1.0
Tutors - Comprehension													
Browne	(E)	81	7.1	2.39	61	8.2	2.68	60	0.9	1.63	4.43*	4.7	1.9
Gaston	(E)	98	8.4	2.88	60	9.8	2.70	58	0.9	2.07	3.43*	6.4	1.4
Hill	(E)	58	9.2	2.66	48	9.9	2.64	47	0.8	1.82	3.07*	4.4	1.8
Marsh	(E)	52	7.8	2.95	44	8.3	3.36	44	0.4	2.14	1.17	3.2	1.3

*p < .05

Table 10

Descriptive Statistics for Mathematics Peer Tutoring Program at Participating Middle Schools

School	Test Level	Pretest			Posttest			Gain Scores			t Statistic	Avg. Mths. in Program	Avg. Gains per Month
		N	Mean	Std.Dev.	N	Mean	Std.Dev.	N	Mean	Std.Dev.			
Tutees													
Browne	3-4	68	3.7	1.03	67	4.3	1.04	66	0.5	1.08	3.87*	4.3	1.3
Cary	3-4	38	4.6	0.92	39	4.6	1.09	37	0.0	0.65	0.03	3.3	0.0
	5-6	2			2			2					
	7-12	29	5.0	0.91	27	5.9	1.59	27	0.8	1.32	3.09*	1.5	5.3
Florence	3-4	66	3.1	0.86	69	4.9	1.03	66	1.7	0.88	15.84*	5.4	3.1
Gaston	3-4	95	3.6	1.00	93	4.1	1.12	92	0.5	0.71	6.84*	4.5	0.9
Greiner	3-4	7			7			7					
	7-12	67	4.3	0.74	66	4.8	1.12	65	0.5	1.05	3.93*	4.9	1.0
Hill	3-4	29	4.8	1.09	30	5.2	0.82	29	0.4	0.67	3.53*	3.1	1.3
	7-12	1									--	2.5	--
Hood	3-4	34	4.2	1.00	30	5.0	0.86	30	0.8	0.88	4.94*	4.3	1.9
Long	3-4	78	4.2	1.13	78	4.8	1.10	78	0.7	0.70	8.56*	4.1	1.7
Walker	3-4	50	3.6	1.23	48	4.0	1.19	43	0.4	0.75	3.54*	2.9	1.4
	5-6	1			2							2.2	
	7-12	4			4			4					
Stone	3-4	32	3.9	0.72	32	4.5	0.9	32	0.5	0.66	4.48*	4.2	1.2
Tutors													
Browne	7-12	66	6.3	1.54	71	7.6	1.94	65	1.2	1.35	7.42*	4.3	2.8
Cary	3-4	2			2			2					
	5-6	41	7.0	1.12	49	7.2	1.37	40	0.1	0.70	1.06	0.1	1.0
	7-12	45	7.5	1.23	36	9.2	1.37	35	.14	1.11	7.59*	1.1	12.7

(continued)

Table 10 (continued)

Descriptive Statistics for Mathematics Peer Tutoring Program at Participating Middle Schools

School	Test Level	Pretest			Posttest			Gain Scores			t Statistic	Avg. Mths. in Program	Avg. Gains per Month
		N	Mean	Std.Dev.	N	Mean	Std.Dev.	N	Mean	Std.Dev.			
Florence	5-6	80	6.2	1.15	80	6.8	1.33	80	0.6	0.82	6.86*	2.7	2.2
	7-12	50	7.9	1.80	50	8.8	1.56	50	1.0	1.56	4.30*	1.6	6.3
Gaston	5-6	85	7.6	1.05	86	8.2	1.04	85	0.6	0.78	7.52*	6.0	1.0
	7-12	3			2			2					
Greiner	5-6	25	7.2	0.90	25	7.3	0.86	24	0.1	4.82	1.27	1.9	0.5
	7-12	72	6.4	1.00	71	7.9	1.62	70	1.5	1.19	10.64*	4.2	3.6
Hill	5-6	9			11	8.5	1.34	9					
	7-12	25	7.8	1.33	23	9.2	1.21	23	1.3	0.86	7.11*	3.4	3.8
Hood	5-6	62	7.1	1.15	62	7.9	1.37	62	0.5	1.17	3.67*	3.0	1.7
Long	5-6	22	7.7	0.80	21	8.3	0.83	21	0.5	0.62	3.47*	2.2	2.3
	7-12	51	8.1	1.63	51	9.0	1.60	51	1.0	0.95	7.33*	5.6	1.8
Walker	5-6	34	7.9	1.07	35	7.8	1.20	34	-0.2	0.56	2.29*	2.1	-1.0
	7-12	35	8.2	6.00	36	8.6	2.21	35	0.5	5.70	0.56	3.1	1.6
Stone	5-6	37	5.9	1.00	37	6.9	1.05	37	0.9	1.03	5.35*	3.2	2.8

*p < .05

Note. Descriptive statistics were not computed for N < 10.

Table 11

Comparison of Mathematics Peer Tutoring and "Regular" ESAA Mathematics Programs

		Pretest							Posttest						
		Peer Tutoring			Regular			t Statistic	Peer Tutoring			Regular			t Statistic
School	Level	N	Mean	S.D.	N	Mean	S.D.		N	Mean	S.D.	N	Mean	S.D.	
Seventh Grade															
Browne	3-4	8			3				8			3			
	7-12	29	7.4	11.99	343	4.7	1.12	1.25	28	6.7	1.61	340	5.6	1.48	3.59*
Cary	7-12	31	5.4	1.12	315	5.0	1.25	1.87	30	7.5	1.51	315	6.4	1.67	3.61*
Florence	3-4	18	2.3	0.64	25	2.7	0.92	-1.78	18	4.2	1.03	25	3.7	1.28	1.54
	7-12	29	4.8	1.30	441	4.3	1.07	2.39*	29	6.5	2.11	420	5.9	1.72	1.56
Gaston	7-12	13	4.6	1.33	445	4.9	1.16	-1.11	12	4.8	1.88	368	5.7	1.62	-1.98*
Greiner	7-12	12	6.1	0.86	280	4.9	1.14	6.31*	30	8.1	1.47	265	6.0	1.74	6.28*
Hood	3-4	5			44	3.3	1.14	-0.62	5			44	3.6	1.23	
	7-12	32	4.7	1.14	411	4.7	1.18	1.07	32	5.9	1.82	411	5.9	1.90	0.20
Long	3-4	4			30	4.2	1.04	0.29	2			25	4.4	1.31	
	7-12	18	5.0	1.25	338	5.0	1.14	-0.02	11	6.2	2.34	326	6.0	1.51	0.39
Walker	7-12	4			254	4.5	0.84	-1.35	4			254	5.7	1.51	
Stone	7-12	7			207	4.8	1.07	2.11*	7			204	6.1	1.60	
Eighth Grade															
Browne	3-4	7			2				7			2			
	7-12	21	5.3	1.41	356	5.2	1.32	0.42	21	7.4	1.69	355	6.5	1.74	2.38*
Cary	7-12	25	5.8	1.42	270	5.5	1.48	1.22	20	8.3	1.03	269	7.1	1.90	2.76*
Florence	3-4	7			13	2.6	0.40		7			13	3.4	0.60	
	7-12	75	6.0	1.19	337	4.8	1.22	7.53*	75	8.3	1.56	337	6.3	1.93	9.85*
Gaston	7-12	31	5.9	1.48	393	5.7	1.44	0.82	30	6.9	1.88	331	6.5	1.78	1.39

(continued)

Table 11 (continued)

Comparison of Mathematics Peer Tutoring and "Regular" ESAA Mathematics Programs

		Pretest							Posttest						
		Peer Tutoring			Regular			t Statistic	Peer Tutoring			Regular			t Statistic
School	Level	N	Mean	S.D.	N	Mean	S.D.		N	Mean	S.D.	N	Mean	S.D.	
Greiner	7-12	55	5.9	1.15	372	5.2	1.27	3.55*	47	7.9	1.65	344	6.9	1.73	3.56*
Hill	7-12	18	6.2	1.52	274	5.6	1.32	1.90	17	7.9	1.78	273	6.4	1.72	3.42*
Hood	3-4	5			24	3.9	1.45		5			24	4.2	1.29	
	7-12	31	5.1	1.45	397	5.3	1.43	-0.76	31	6.3	2.06	397	6.4	1.96	-0.25
Long	3-4	3			9				2			8			
	7-12	38	6.3	1.51	302	5.7	1.46	2.26*	33	8.1	1.79	289	6.8	1.79	3.96*
Walker	7-12	18	5.7	1.03	300	4.9	1.19	2.81*	18	6.9	1.79	298	5.7	1.60	2.89*
Stone	7-12	12	5.2	1.12	194	5.2	1.41	-0.13	11	8.0	1.78	173	6.6	1.83	2.30*

*p < .05

Note. Descriptive statistics were not computed for N < 10.

6. Table 12 presents the schools, grades, and programs where significant differences between expected and observed posttest scores in the 27 intermediate schools were found.

Expected performance scores were generated for each student by calculating his theoretical rate of growth (performance on the standardized test divided by the student's grade placement when he/she was tested), multiplying this rate of growth by the length of time that the student was enrolled in the program, and adding this result to the pretest score to obtain an expected posttest score based on the student's past performance. This expected score was then compared to the student's actual performance on the posttest instrument.

Results of this analysis indicated that fourth-grade students at four schools (Conner, Hawthorne, Hotchkiss, and Longfellow), fifth-grade students at one school (Foster), sixth-grade students at four schools (Foster, Pershing, Truett, and Rowe) demonstrated actual performance that was significantly higher than expected performance in vocabulary skills. However, fifth-grade students at Burnet, Conner, Pershing, and Preston Hollow; sixth-grade students at Hotchkiss and Marcus demonstrated actual performance which was significantly below the expected performance on the vocabulary test. In reading comprehension, fourth-grade students at six schools (Conner, Hawthorne, Marcus, Rogers, San Jacinto, and Truett); fifth-grade students at two schools (Foster and Rowe); and sixth-grade students at five schools (Burleson, Foster, Truett, Rowe, and Rylie) demonstrated actual performance that was significantly higher than expected in the reading comprehension subtest. Fifth-grade students at Burnet, Conner, Reinhardt, and Williams; sixth-grade students at Hotchkiss, Longfellow, Reilly, and Sanger demonstrated an actual performance that was significantly below the expected performance on the reading comprehension subtest.

Table 12

Intermediate Schools Demonstrating Significant Differences Between Expected Posttest Scores and Observed Posttest Scores

	Vocabulary			Comprehension			Mathematics		
School/Grade	4	5	6	4	5	6	4	5	6
J. Q. Adams							+	-	
Bayles[a]		0	0		0	0		+	+
A. W. Blanton							+		
D. G. Burnet		-			-		+		+
R. C. Burleson						+	+	+	+
F. P. Caillet							+		+
S. S. Conner	+	-		+	-		+		+
J. Dorsey							+	+	+
S. C. Foster		+	+		+	+	+	+	+
N. Hawthorne	+			+			+	+	+
L. L. Hotchkiss	+		-			-	+	-	+
J. Ireland							+	-	+
Lakewood[a]		0	0		0	0	+	+	
H. W. Longfellow	+					-		-	+
H. Marcus			-	+			+	+	
J. J. Pershing		-	+						+
Preston Hollow		-					+		+
M. T. Reilly[a]	0		0	0	0	-	+	+	+
Reinhardt[a]					-		+	+	+
D. D. Rogers				+			+	+	+
A. Sanger[a]	0	0				-	+	+	+
San Jacinto				+			+	-	+
G. B. Truett			+	+		+	+	+	-
Walnut Hill							+	+	+
S. Williams					-		0	+	+
E. Rowe			+		+	+	+	+	+
Rylie						+	+	+	
Bilingual Schools									
J. Q. Adams	0	0	0	0	0	0			
D. G. Burnet	0	0	0	0	0	0			
R. C. Burleson			0			0			
F. P. Caillet	0	0	0	0	0	0			
J. Dorsey	0	0	0	0	0	0			
S. C. Foster		+	+		+	+			
L. L. Hotchkiss		-							
H. Marcus			-						
Preston Hollow	0			0					

Note. A "+" indicates that the observed posttest scores were significantly higher than posttest scores expected under a nontreatment condition, a "-" indicates that observed posttest scores were significantly lower than expected posttest scores, an "0" indicates that insufficient data prohibited a comparison, and a blank (" ") indicates no significant difference.

[a] Schools designated as ESAA-only schools

In the mathematics program, fourth-grade students at 23 schools (Adams, Blanton, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Hotchkiss, Ireland, Lakewood, Marcus, Preston Hollow, Reilly, Reinhardt, Rogers, Sanger, San Jacinto, Truett, Walnut Hill, Rowe, and Rylie); fifth-grade students at 16 schools (Bayles, Burleson, Dorsey, Foster, Hawthorne, Lakewood, Marcus, Reilly, Reinhardt, Rogers, Sanger, Truett, Walnut Hill, Williams, Rowe, and Rylie); sixth-grade students at 21 schools (Bayles, Burnet, Burleson, Caillet, Conner, Dorsey, Foster, Hawthorne, Hotchkiss, Ireland, Longfellow, Pershing, Preston Hollow, Reilly, Reinhardt, Rogers, Sanger, San Jacinto, Walnut Hill, Williams, and Rowe) demonstrated actual performance on the posttest that was significantly greater than the expected performance under a nontreatment condition. However, students enrolled in the fifth grade at Adams, Hotchkiss, Ireland, Longfellow, and San Jacinto and sixth-grade students at Truett demonstrated actual performance on the posttest that was significantly lower than would have been expected under a nontreatment condition.

In the ESAA Bilingual Education Program, students enrolled in the fifth and sixth grades at Foster demonstrated an actual performance on the posttest of the vocabulary subtest that was significantly higher than would have been expected under a nontreatment condition. Students in the fifth and sixth grades at Foster demonstrated an actual performance on the posttest of the reading comprehension subtest that was significantly higher than would have been expected under a nontreatment condition. Fifth-grade students at Hotchkiss and sixth-grade students at Marcus demonstrated actual performance on the posttest that was significantly lower than would have been expected under a nontreatment condition.

Table 13 presents the schools, grades, and programs where significant differences between expected and observed posttest scores in the 12 middle schools were found. Results of the comparison of observed and expected posttest scores revealed that seventh-grade students at Stone demonstrated significantly higher expected posttest scores on the vocabulary subtest than would have been expected under a nontreatment condition: seventh-grade students at Florence and Marsh demonstrated significantly higher posttest scores than expected in the reading comprehension subtest; and seventh-grade students at all schools except Browne and eighth-grade students at all schools except Stockard demonstrated significantly higher posttest scores than expected on the mathematics test. Eighth-grade students at Hill and Walker demonstrated expected posttest scores which were significantly lower than posttest scores expected under a nontreatment condition in vocabulary, as did seventh-grade students at Greiner and eighth-grade students at Browne, Cary, Gaston, Greiner, Hill, and Long on the reading comprehension subtest.

Table 13

Middle Schools Demonstrating Significant Differences
Between Expected Posttest Scores and Observed Posttest Scores

School/Grade	Vocabulary 7	Vocabulary 8	Comprehension 7	Comprehension 8	Mathematics 7	Mathematics 8
T. W. Browne				-		+
E. H. Cary				-	+	+
F. F. Florence			+		+	+
W. H. Gaston				-	+	+
W. E. Greiner			-	-	+	+
R. T. Hill		-		-	+	+
J. B. Hood					+	+
J. L. Long				-	+	+
T. C. Marsh		0	+	0	+	+
L. V. Stockard					+	
E. D. Walker		-			+	+
H. Stone	+				+	+

Note. A "+" indicates that the observed posttest score was significantly higher than the posttest score expected under a nontreatment condition, a "-" indicates that the observed posttest score was significantly lower than the expected posttest score, a "0" indicates that insufficient data prohibited a comparison, and a blank (" ") indicates no significant difference.

7. A review of the recent research in reading revealed new techniques of remediating, analyzing, and testing as well as a wide variety of examples of reading programs. Some of these programs included programs utilizing parents as teaching partners, volunteer programs, videotaped television programs and program scripts and content area programs. The current trends in remedial mathematics emphasize the importance of programs that will guarantee mastery of minimum essential skills for particular school grades or for graduation. Therefore the greatest undercurrent in present program decision-making has been pressure to reemphasize computations skills needed by all students to function effectively in daily adult life.

Additional Information:

EE77-074-9-1 Evaluation of the 1976-77 Emergency School Aid Act, Special I, 1977, Wayne E. Carter, Sally Akers, Kathy Cannon, Patricia Dagley, Sharon Haywood, Napolean Mitchell.

Abstract

Evaluation of the 1976-77
Emergency School Aid Act
Basic Project and Special II Project

Evaluators: Wayne E. Carter
Sally Akers
Kathy Cannon
Patricia Dagley
Sharon Haywood
Napoleon Mitchell

Objectives of the Program: During the 1976-77 school year, the Emergency School Aid Act (ESAA) Basic Grant funded three project components: Basic Instruction, which included Special Remedial Services and Staff Training; Supportive Services, which included Community Affairs and Evaluation; and Administrative Services. This was the fourth year of implementation of the Secondary Reading Program (Special Remedial Services) under the auspices of the ESAA Basic Grant in eight Dallas Independent School District (DISD) high schools (Bryan Adams, W. H. Adamson, Hillcrest, North Dallas, W. W. Samuell, H. Grady Spruce, W. T. White, and Woodrow Wilson). Also during the 1976-77 school year the DISD received funds from an ESAA Special II Grant to implement the Secondary Reading Program in the four magnet high schools (Business and Management, Creative Arts, Transportation Institute, and Health Sciences). Students enrolled in the Secondary Reading Program were expected to demonstrate improvement in reading skills and instruction was to be based on a diagnostic-prescriptive approach.

Purpose of the Evaluation: The evaluation of the ESAA Basic Project was designed to delineate, obtain, and provide useful, descriptive and informative feedback for decision-making. Two process evaluation reports were written to summarize information concerning the implementation of the project during the 1976-77 school year. Additionally, the evaluation component was to provide end-of-year summative information for determination of the degree to which program components met their stated objectives.

Sample: Selection of students for the Secondary Reading Program was made through teacher recommendation and test scores. Students reading two or more years below grade placement were eligible. The sample of students used in this evaluation was all students enrolled in the Secondary Reading Program in the eight targeted Basic high schools (Bryan Adams, W.H. Adamson, Hillcrest, North Dallas, W.W. Samuell, H. Grady Spruce, W.T. White, and Woodrow Wilson); nine nontargeted high schools (T. Jefferson, J. F. Kimball, L. G. Pinkston, F. D. Roosevelt, Seagoville, South Oak Cliff, Sunset, D. W. Carter, and Skyline); and four targeted Special II magnet schools (Business and Management, Creative Arts, Transportation and Health Sciences). A total of 8,291 students participated in the program. Pretest data were available for 6,314 students (vocabulary) and 6,316 students (reading comprehension). Posttest data were available for 4,688 and 4,615 students respectively for vocabulary and reading comprehension. The numbers of students having both pre- and posttest data were 4,003 and 4,035 respectively for reading and comprehension.

Evaluation Design: The major evaluation questions were:

1. What were the characteristics of the ESAA Basic and Special II Projects as they were implemented in each school?
2. Were the ESAA Basic and Special II Projects implemented as designed?
3. What was the distribution of gains in achievement on the Iowa Tests of Basic Skills from pre- to posttest for students served by the ESAA Basic and Special II Projects?
4. What were the differences in proportions of students demonstrating mastery of pre- and posttest objectives for each objective measured by the Everyday Skills Test?
5. How did the performance of the 1976-77 12th-grade reading students compare to (a) the 1975-76 12th-grade reading students and (b) all 12th-grade students on the Everyday Skills Test?
6. Did the posttest performance of students on a standardized reading test exceed the expected performance for a nontreatment condition?
7. What were the perceptions of the Project staff regarding the effectiveness of training sessions for implementation of the Project?
8. What were the national trends in remedial reading programs at the secondary school level?

The methodology used to collect data to answer these questions was:

Questions 1 & 2: Questionnaires and classroom observations were used to collect data for these questions. Two separate questionnaires were mailed to the reading teachers and reading resource teachers in November and February. Supplementary teachers were mailed questionnaires in February. A 25% random sample of reading teachers at each school was selected for classroom observation.

Question 3: All students enrolled in the Secondary Reading Program at all targeted schools, all nine nontargeted schools, and two of the four magnet schools were administered the Reading Comprehension and Vocabulary subtests of the Iowa Tests of Basic Skills as a pretest in September, 1976. All students enrolled in the program were posttested on the same tests in April, 1977.

Questions 4 & 5: All students enrolled in the reading program at the targeted and nontargeted schools were administered the Reading Subtest of the Everyday Skills Test as a pretest in the fall of 1976. A random sample of students enrolled in the magnet high schools were pretested by the Career Education Evaluation Personnel. All students enrolled in the reading program were posttested in the spring of 1977, the 12th-grade students in March with all 12th-grade students, District wide, and all other ESAA students in April.

Question 6: Expected student scores under a nontreatment condition were computed for each student. These scores were based upon the students pretest score, the grade placement at the time of the pretest, and the number of months of instruction that elapsed between pretest and posttest. That is:

Expected Score = Pretest Score + (Pretest Score÷Grade Placement) X Time

Expected scores were then compared to actual posttest scores using a paired t-test.

Question 7: Participants at the two workshops conducted for reading staff personnel on October 16, 1976 and January 15, 1977 were administered survey instruments. One hundred-thirty-five participants at the first workshop and 153 at the second workshop responded to the survey instruments.

Question 8: A literature review was conducted by evaluation personnel to determine the national trends in reading.

Evaluation Results:

1. In the targeted schools, there were eight resource teachers and 55 reading teachers. These reading teachers included 44 regular classroom teachers and 11 supplementary teachers. In the nontargeted schools, there were three resource teachers and 61 classroom teachers. These classroom teachers included six teachers that functioned in the role of lead teacher and classroom teacher. Supplementary teachers were assigned to six of the targeted schools. These supplementary teachers worked with small groups of students taken from the reading classes. Their instruction was similar to regular classroom instruction, but they were able to give more individualized instruction due to the smaller class size.

   There were 3,370 ESAA students enrolled in the eight targeted high schools and 4,921 students enrolled in the nine non-targeted schools. The overall ethnic composition was 65% Black, 20% Anglo, and 13% Mexican-American.

   Eight of the nine reading teachers in the magnet schools were supplementary teachers and the ninth was a locally-funded teacher. The classes were designed for teachers to work with a small number of selected students on an individual basis to help improve their reading skills. There were 263 students enrolled in the reading program in the four magnet high schools.

   A reading resource teacher was assigned to each of the targeted high schools and each of the magnet high schools. This person was responsible for coordinating the diagnostic-prescriptive reading program. Staff development included meetings with resource teachers and workshops. Fifty-six percent of the Basic teachers and 88% of the Special II teachers felt they taught reading on an individualized basis. These schools also had a tutoring program to work with students in developing their skills.

2. The late funding and delays in staffing hindered the initial implementation of the remedial reading program in the four magnet schools, but it was proceeding smoothly by the second process evaluation. The Secondary Reading Program continued to operate smoothly in the eight targeted high schools and in the nine nontargeted high schools.

3. All students enrolled in the Secondary Reading Program were pretested in the fall of 1976 and posttested in the spring of 1977. While descriptive statistics are presented for all students who were tested on each test, only those students who were tested on both the pretest and posttest were included in the analysis of gain scores.

   Table 1 presents the schools and grades where significant gains in achievement were noted.

   As indicated in Table 1, ninth-grade students in seven of the eight targeted ESAA Basic high schools (Adamson, Hillcrest, North Dallas, Samuell, Spruce, White and Wilson), one Special II school (Health Sciences) and in eight of the nine nontargeted schools (Jefferson, Kimball, Pinkston, Roosevelt, Seagoville, South Oak Cliff, Carter, and Skyline); tenth-grade students at three targeted ESAA Basic schools (North Dallas, Samuell, and Spruce) and three nontargeted schools (Pinkston, South Oak Cliff, and Carter); eleventh-grade students at two targeted schools (Samuell and White), and eight nontargeted schools (Jefferson, Pinkston, Roosevelt, Seagoville, South Oak Cliff, Sunset, Carter, and Skyline); and twelfth-grade students in two nontargeted schools (Pinkston and Roosevelt) demonstrated significant gains in vocabulary.

   Ninth-grade students enrolled in the Secondary Reading Program at three targeted ESAA Basic schools (Samuell, White, and Wilson), one Special II school (Business and Management), and four nontargeted schools (Jefferson, Pinkston, South Oak Cliff, and Carter); tenth-grade students at five targeted schools (Adamson, North Dallas, Samuell, Spruce, and Wilson) and four nontargeted schools (Pinkston, Roosevelt, South Oak Cliff, and Skyline); eleventh-grade students at four targeted schools (Adamson, North Dallas, Samuell, and Spruce) and four nontargeted schools (Jefferson, Kimball, South Oak Cliff, and Skyline); and twelfth-grade students at one targeted school (White) and two nontargeted schools (Jefferson and Kimball) demontrated significant gains in reading comprehension.

   Although these significant gains were demonstrated, the performance levels were still far below grade level. Table 2 presents descriptive statistics for posttest scores by grade level for the participating schools.

Table 1

Schools Where Significant Gains in Achievement Were Found

	Vocabulary				Reading Comprehension			
School/Grade	9	10	11	12	9	10	11	12
Targeted Schools								
Bryan Adams								
W. H. Adamson	X			-		X	X	-
Hillcrest	X			-				-
North Dallas	X	X		-		X	X	-
W. W. Samuell	X	X	X	-	X	X	X	-
H. G. Spruce	X	X				X	X	
W. T. White	X		X		X			X
W. Wilson	X			-	X	X		-
Special II Schools								
Business		-	-	-	X	-	-	-
Creative Arts	-	-	-	-	-	-	-	-
Transportation	-	-	-	-	-	-	-	-
Health Sciences	X	-	-	-		-	-	-
Nontargeted Schools								
T. Jefferson	X		X		X		X	X
J. F. Kimball	X			-			X	-
L. G. Pinkston	X	X	X	X	X	X		X
F. D. Roosevelt	X		X	X		X		
Seagoville	X		X	-				-
South Oak Cliff	X	X	X		X	X	X	
Sunset			X					
D. W. Carter	X	X	X	-	X			-
Skyline	X		X	-		X	X	-

Note: An "X" denotes that a significant difference in game scores was observed at this school, a " " denotes no significant difference, and as "-" indicates that insufficient data were available for the computation of the test of significance.

Table 2

Descriptive Statistics for Posttest Results
on the Vocabulary and Reading Comprehension
Subtest of the Iowa Tests of Basic Skills

School	Grade	Vocabulary			Reading Comprehension		
		N	Mean	Std Dev	N	Mean	Std Dev
Targeted Schools							
Bryan Adams	9	52	5.7	1.40	52	5.5	1.45
	10	37	5.6	1.77	37	5.4	1.29
	11	48	5.9	1.55	50	5.7	1.52
	12	26	6.7	1.45	26	6.7	1.51
Adamson	9	85	5.1	1.54	86	5.0	1.28
	10	79	5.1	1.43	79	5.6	1.29
	11	49	5.3	1.49	48	5.0	1.40
	12	6			6		
Hillcrest	9	18	5.4	1.60	17	4.6	1.19
	10	41	5.3	1.79	40	4.8	1.76
	11	27	6.5	1.08	28	4.9	1.75
	12	10	6.1	1.57	10	4.5	1.42
North Dallas	9	64	5.1	1.45	67	4.5	1.39
	10	116	5.8	1.64	116	5.7	1.59
	11	80	6.5	1.60	78	6.6	1.54
	12	13	6.1	2.31	14	6.5	1.98

(continued)

Table 2 (continued)

Descriptive Statistics for Posttest Results on the Vocabulary and REading Comprehension Subtest of the Iowa Tests of Basic Skills

		Vocabulary			Reading Comprehension		
School	Grade	N	Mean	Std Dev	N	Mean	Std Dev
Targeted Schools							
Samuell	9	33	5.0	1.73	33	5.2	1.59
	10	153	6.8	1.63	153	6.7	1.52
	11	62	6.7	1.65	64	6.4	1.57
	12	10	5.4	1.59	10	5.4	1.84
Spruce	9	36	6.1	1.73	36	5.6	1.39
	10	283	6.7	1.76	281	6.5	1.74
	11	195	6.5	1.81	191	6.3	1.60
	12	16	6.8	1.61	16	6.5	1.68
White	9	36	6.1	1.73	36	5.6	1.39
	10	18	6.2	2.35	17	5.7	1.73
	11	58	7.0	1.78	59	6.6	1.87
	12	25	7.7	2.10	27	7.4	2.11
Wilson	9	111	5.0	1.43	108	4.7	1.31
	10	51	5.3	1.53	52	5.3	1.30
	11	45	5.4	1.85	47	5.1	1.43
	12	1			1		
Special II Schools							
Business	9	37	4.8	1.50	34	4.9	0.87
	10	5			4		
Creative Arts	9	28	4.9	1.12	29	5.4	1.55
	10	32	5.7	1.43	34	6.2	1.54
Transportation	9	17	5.6	1.61	17	5.9	1.76
	10	18	5.7	1.33	18	5.8	1.58
Health Science	9	14	5.5	1.99	13	5.2	1.24
	10	5			5		
	11	3			3		
	12	1			0		

(continued)

Table 2 (continued)

Descriptive Statistics for Posttest Results on the Vocabulary and Reading Comprehension Subtest of the Iowa Tests of Basic Skills

		Vocabulary			Reading Comprehension		
School	Grade	N	Mean	Std Dev	N	Mean	Std Dev
Nontargeted Schools							
Jefferson	9	70	5.6	1.51	73	5.6	1.33
	10	58	5.8	1.37	59	5.5	1.34
	11	50	6.4	1.37	52	6.0	1.22
	12	11	6.5	2.18	12	7.0	1.42
Kimball	9	13	4.9	1.71	13	4.9	0.79
	10	12	5.4	1.98	12	5.4	1.72
	11	28	5.9	1.67	28	5.8	1.50
	12	1			1		
Pinkston	9	176	4.4	1.37	183	4.4	1.17
	10	181	4.8	1.41	183	5.1	1.14
	11	128	5.0	1.42	130	5.0	1.26
	12	38	5.6	1.53	39	5.6	1.51
Roosevelt	9	89	4.5	1.50	82	4.0	1.17
	10	97	5.1	1.60	101	5.2	1.38
	11	113	5.5	1.24	114	5.0	1.33
	12	54	5.8	1.52	59	4.7	1.35
Seagoville	9	26	5.6	1.71	25	5.0	1.10
	10	29	5.8	1.74	31	5.8	1.25
	11	28	6.2	1.48	26	5.4	1.39

(continued)

Table 2 (continued)

Descriptive Statistics for Posttest Results on the Vocabulary and Reading Comprehension Subtest of the Iowa Tests of Basic Skills

School	Grade	Vocabulary N	Vocabulary Mean	Vocabulary Std Dev	Reading Comprehension N	Reading Comprehension Mean	Reading Comprehension Std Dev
Nontarged Schools							
South Oak Cliff	9	310	4.6	1.35	309	4.4	1.21
	10	195	4.9	1.23	196	4.8	1.15
	11	146	5.1	1.38	146	5.0	1.21
	12	44	5.3	1.[illegible]	44	4.1	1.04
Sunset	9	11	4.5	1.64	11	5.1	1.48
	10	50	5.7	1.72	52	5.5	1.54
	11	78	6.1	1.50	83	5.6	1.73
	12	18	6.7	1.63	18	6.0	1.61
Carter	9	80	4.5	1.45	83	4.5	1.28
	10	59	5.0	1.26	59	4.9	0.98
	11	86	5.5	1.56	87	5.5	1.54
	12	4			4		
Skyline	9	45	5.5	1.18	45	5.3	1.28
	10	100	5.7	1.59	100	5.9	1.44
	11	89	6.6	1.21	89	6.3	1.33
	12	7			7		

Note: Descriptive statistics were not computed for n < 10.

At the ninth grade, mean posttest grade equivalent scores ranged from 4.4 (Pinkston) to 6.1 (White) in Vocabulary and from 4.0 (Roosevelt) to 5.9 (Transportation) in Reading Comprehension. At the tenth grade, mean posttest grade equivalent scores ranged from 4.8 (Pinkston) to 6.8 (Samuell) in Vocabulary and from 4.8 (Hillcrest and South Oak Cliff) to 6.7 (Samuell) in Reading Comprehension. At the eleventh grade level, mean posttest grade equivalent scores ranged from 5.0 (Pinkston) to 7.0 (White) in Vocabulary and from 4.9 (Hillcrest) to 6.6 (North Dallas and White) in Reading Comprehension. Finally, at the twelfth-grade level, mean posttest grade equivalent scores ranged from 5.3 (South Oak Cliff) to 7.7 (White) in Vocabulary and from 4.1 (South Oak Cliff) to 7.4 (White) in Reading Comprehension.

4. A total of 6,155 students enrolled in the Secondary Reading Program were administered the Reading Subtest of the Everyday Skills Test as a pretest in the fall of 1976 and 4,682 students were posttested in the spring of 1977.

Table 3 presents the number and percent of students mastering each objective on the pretest and posttest.

As indicated by Table 3, the differences in proportions of students demonstrating mastery of each objective from pretest to posttest for the targeted ESAA Basic high schools were: Objective 1--+1%, Objective 2-- +3%, Objective 3-- +6%, Objective 4-- +7%, Objective 5-- +6%, Objective 6-- +6%, Objective 7-- +4%, Objective 8-- +22%, Objective 9-- +7%, Objective 10-- +6%, Objective 11-- +23%, Objective 12-- +9%, Objective 13-- +12%, Objective 14-- +12%, and Objective 15-- +12%. For the students enrolled in the ESAA Special II schools, these changes in percentage were: Objective 1-- -2%, Objective 2-- -1%, Objective 3-- -2%, Objective 4-- -11%, Objective 5-- -4%, Objective 6-- -8%, Objective 7-- -8%, Objective 8-- -8%, Objective 9-- -8%, Objective 10-- -9%, Objective 11-- -9%, Objective 12-- -9%, Objective 13-- -10%, Objective 14-- -29%, and Objective 15-- -34%. It should be noted here that the pretest scores on which the change in percentage was based were obtained, in most cases, from a sample population of students enrolled in the magnet high schools. This sample may not be representative of students enrolled in the ESAA reading program at these schools. For students enrolled in the non-targeted schools, the changes in percentage of students mastering each objective were: Objective 1-- +1%, Objective 2-- +4%, Objective 3-- +6%, Objective 4-- +7%, Objective 5-- +7%, Objective 6-- +7%, Objective 7-- +4%, Objective 8-- +24%, Objective 9-- +9%, Objective 10-- +8%, Objective 11-- +13%, Objective 12-- +9%, Objective 13-- +9%, Objective 14-- +6%, Objective 15-- +7%.

Table 4 presents the descriptive statistics for the number of objectives mastered displayed by grade and school. While means and standard deviation are presented for all students tested, gain scores were calculated only on the 3,808 students who had taken both the pretest and the posttest. This represented 62% of the students who were pretested and 81% of the students who were posttested.

Table 3

Number and Percent of Students Maste
Everyday Skills Test - Reading Subtest

		Objectiv															
		1		2		3		4		5		6		7		8	
School		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
TARGETED																	
Bryan Adams	Pre	221	96	207	90	207	90	204	89	195	85	199	87	203	88	165	7
	Post	163	95	160	94	154	90	145	85	152	89	151	88	150	88	159	9
Adamson	Pre	319	90	308	87	258	73	227	64	266	75	256	73	266	75	209	5
	Post	216	94	215	94	192	84	175	76	191	83	193	84	191	83	195	8
Hillcrest	Pre	98	92	97	91	88	82	74	69	89	83	88	82	92	80	71	6
	Post	93	97	89	93	81	84	76	79	81	84	86	90	80	83	83	8
North Dallas	Pre	364	97	342	91	321	85	270	72	301	80	305	81	309	82	248	6
	Post	269	98	264	96	250	91	231	84	252	92	249	91	240	87	260	9
Samuell	Pre	306	93	300	91	288	87	272	82	283	86	278	84	289	88	250	7
	Post	233	94	232	94	223	90	215	87	220	89	220	89	217	88	223	9
Spruce	Pre	669	94	661	93	623	88	583	82	613	87	600	85	594	84	524	7
	Post	522	95	522	95	500	91	485	88	488	89	493	90	484	88	511	9
White	Pre	163	93	164	94	150	86	140	80	141	81	142	81	139	79	115	6
	Post	121	94	119	92	115	89	113	88	115	89	117	91	114	88	121	9
Wilson	Pre	217	91	203	85	167	70	161	67	173	72	163	68	178	74	143	6
	Post	154	93	150	90	134	81	119	72	138	83	119	72	123	74	135	8
TOTAL BASIC TARGETED	Pre	2357	94	2282	91	2102	83	1931	77	2061	82	2031	81	2070	82	1725	6
	Post	1771	95	1751	94	1649	89	1559	84	1637	88	1628	87	1599	86	1687	9

ring Each Objective on the
on the Pretest and Posttest

9 N	9 %	10 N	10 %	11 N	11 %	12 N	12 %	13 N	13 %	14 N	14 %	15 N	15 %	Total No. of Students Tested
195	85	195	85	155	67	168	73	145	63	115	50	76	33	230
147	86	157	92	129	75	140	82	126	74	120	70	74	43	171
247	70	260	74	171	48	223	63	146	41	96	27	51	14	353
178	78	180	79	152	66	169	74	129	56	83	36	63	28	229
85	79	85	79	58	54	77	72	70	65	39	36	16	15	107
83	86	86	86	68	71	68	71	59	61	45	47	29	30	96
284	76	293	78	232	62	254	68	216	57	133	35	83	22	376
241	88	248	90	219	80	234	85	194	71	148	54	118	43	275
276	84	281	85	223	68	266	81	221	67	188	57	126	38	330
209	85	220	89	200	81	207	84	196	79	160	65	128	52	247
580	82	601	85	491	69	541	76	469	66	387	55	249	35	708
463	84	485	88	406	74	451	82	419	76	356	65	226	41	549
130	74	146	83	109	62	135	77	109	62	80	46	51	29	175
120	93	116	90	105	81	112	87	106	82	83	64	51	40	129
151	63	176	74	117	49	150	63	103	43	72	30	62	26	239
122	73	127	77	100	60	118	71	87	52	57	34	48	29	166
1948	77	2037	81	1556	62	1814	72	1479	59	1110	44	714	28	2518
1563	84	1619	87	1579	85	1499	81	1316	71	1052	56	737	40	1862

(continued)

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Tabl

Number and Percent of Student
Everyday Skills Test - Reading

School		1		2		3		4		5		6		7	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
TARGETED															
Bryan Adams	Pre	221	96	207	90	207	90	204	89	195	85	199	87	203	88
	Post	163	95	160	94	154	90	145	85	152	89	151	88	150	88
Adamson	Pre	319	90	308	87	258	73	227	64	266	75	256	73	266	75
	Post	216	94	215	94	192	84	175	76	191	83	193	84	191	83
Hillcrest	Pre	98	92	97	91	88	82	74	69	89	83	88	82	92	80
	Post	93	97	89	93	81	84	76	79	81	84	86	90	80	83
North Dallas	Pre	364	97	342	91	321	85	270	72	301	80	305	81	309	82
	Post	269	98	264	96	250	91	231	84	252	92	249	91	240	87
Samuell	Pre	306	93	300	91	288	87	272	82	283	86	278	84	289	88
	Post	233	94	232	94	223	90	215	87	220	89	220	89	217	88
Spruce	Pre	669	94	661	93	623	88	583	82	613	87	600	85	594	84
	Post	522	95	522	95	500	91	485	88	488	89	493	90	484	88
White	Pre	163	93	164	94	150	86	140	80	141	81	142	81	139	79
	Post	121	94	119	92	115	89	113	88	115	89	117	91	114	88
Wilson	Pre	217	91	203	85	167	70	161	67	173	72	163	68	178	74
	Post	154	93	150	90	134	81	119	72	138	83	119	72	123	74
TOTAL BASIC TARGETED	Pre	2357	94	2282	91	2102	83	1931	77	2061	82	2031	81	2070	82
	Post	1771	95	1751	94	1649	89	1559	84	1637	88	1628	87	1599	86

3

Mastering Each Objective on the
ubtest on the Pretest and Posttest

jective																Total No. of Students Tested
8		9		10		11		12		13		14		15		
N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
165	72	195	85	195	85	155	67	168	73	145	63	115	50	76	33	230
159	93	147	86	157	92	129	75	140	82	126	74	120	70	74	43	171
209	59	247	70	260	74	171	48	223	63	146	41	96	27	51	14	353
195	85	178	78	180	79	152	66	169	74	129	56	83	36	63	28	229
71	66	85	79	85	79	58	54	77	72	70	65	39	36	16	15	107
83	86	83	86	86	86	68	71	68	71	59	61	45	47	[illegible]	30	96
248	66	284	76	293	78	232	62	254	68	216	57	133	35	83	22	376
260	95	241	88	248	90	219	80	234	85	194	71	148	54	118	43	275
250	76	276	84	281	85	223	68	266	81	221	67	188	57	126	38	330
223	90	209	85	220	89	200	81	207	84	196	79	160	65	128	52	247
524	74	580	82	601	85	491	69	541	76	469	66	387	55	249	35	708
511	93	463	84	485	88	406	74	451	82	419	76	356	65	226	41	549
115	66	130	74	146	83	109	62	135	77	109	62	80	46	51	29	175
121	94	120	93	116	90	105	81	112	87	106	82	83	64	51	40	129
143	60	151	63	176	74	117	49	150	63	103	43	72	30	62	26	239
135	81	122	73	127	77	100	60	118	71	87	52	57	34	48	29	166
725	69	1948	77	2037	81	1556	62	1814	72	1479	59	1110	44	714	28	2518
687	91	1563	84	1619	87	1579	85	1499	81	1316	71	1052	56	737	40	1862

(continued)

Table 3 (cont

Number and Percent of Students Mast
Everyday Skills Test - Reading Subtes

School		1		2		3		4		5		6		7		Obje
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	
SPECIAL II																
Business Management[a]	Pre	12	100	12	100	11	92	12	100	12	100	12	100	12	100	1
	Post	51	96	52	98	49	92	43	81	49	92	46	87	48	91	4
Creative Arts[a]	Pre	26	100	25	96	25	96	26	100	26	100	26	100	26	100	26
	Post	32	100	32	100	30	94	31	97	31	97	32	100	29	91	29
Transportation[a]	Pre	2	100	2	100	2	100	2	100	2	100	2	100	2	100	2
	Post	39	100	38	97	37	95	35	90	37	95	36	92	36	92	37
Health Sciences[a]	Pre	4	100	4	100	4	100	4	100	3	75	4	100	4	100	4
	Post	33	97	34	100	31	91	32	94	32	94	32	94	33	97	32
TOTAL SPECIAL II	Pre	44	100	43	98	42	95	44	100	43	98	44	100	44	100	44
	Post	155	98	156	99	147	93	141	89	149	94	146	92	146	92	145

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ering Each Objective on the
t on the Pretest and Posttest

ctive															
	9		10		11		12		13		14		15		Total No. of Students Tested
%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
100	12	100	12	100	12	100	12	100	11	92	11	92	9	75	12
89	45	85	43	81	45	85	47	89	43	81	32	60	23	43	53
100	24	92	26	100	24	92	25	96	24	92	24	92	22	85	26
91	31	97	29	91	29	91	29	91	30	94	28	88	25	78	32
100	2	100	2	100	2	100	2	100	2	100	2	100	2	100	2
95	35	90	38	97	33	85	31	79	32	82	18	46	15	38	39
100	4	100	3	75	4	100	3	75	4	100	2	50	2	50	4
92	27	79	31	91	29	85	29	85	26	76	17	50	9	26	34
100	42	95	43	98	42	95	42	95	41	93	39	89	35	80	44
92	138	87	141	89	136	86	136	86	131	83	95	60	72	46	158

(continued)

Table 3 (con

Number and Percent of Students Mas
Everyday Skills Test - Reading Subte

School		1 N	1 %	2 N	2 %	3 N	3 %	4 N	4 %	5 N	5 %	6 N	6 %	7 N	7 %
NONTARGETED															
Jefferson	Pre	266	97	266	97	245	89	229	84	247	90	241	88	248	91
	Post	208	99	205	98	197	94	188	90	192	92	193	92	194	93
Kimball	Pre	115	94	110	90	99	81	84	69	93	76	88	72	92	75
	Post	79	92	84	98	77	90	67	78	73	85	66	77	72	84
Pinkston	Pre	514	82	486	78	400	64	304	49	402	64	352	56	381	61
	Post	396	86	387	84	349	75	294	63	333	72	325	70	320	69
Roosevelt	Pre	397	91	372	85	339	78	286	65	328	75	314	72	318	73
	Post	333	93	319	89	297	83	248	69	288	80	271	75	272	76
Seagoville	Pre	235	91	217	84	195	76	187	72	175	68	173	67	186	72
	Post	158	92	154	90	137	80	138	81	143	84	139	81	139	81
South Oak Cliff	Pre	906	91	845	85	722	72	591	59	712	71	686	69	675	68
	Post	672	90	653	87	576	77	472	63	586	78	569	76	538	72
Sunset	Pre	256	96	244	92	220	83	205	77	230	86	227	85	227	85
	Post	147	96	146	95	144	94	125	82	136	89	135	88	134	88
Carter	Pre	288	91	274	86	248	78	212	67	234	74	233	74	231	73
	Post	222	92	223	93	200	83	180	75	210	87	193	80	181	75
Skyline	Pre	281	95	274	92	251	85	238	80	258	87	261	88	255	86
	Post	220	95	227	98	206	89	203	87	211	91	204	88	202	87
TOTAL NONTARGETED	Pre	3258	91	3089	86	3068	85	2335	65	2679	75	2575	72	2613	73
	Post	2435	92	2398	90	2431	91	1915	72	2172	82	2095	79	2052	77

inued)

tering Each Objective on the
t on the Pretest and Posttest

ective																Total No. of Students
8		9		10		11		12		13		14		15		
N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	Tested
4	74	233	85	234	85	175	64	231	84	179	65	124	45	60	22	274
9	95	191	91	193	92	177	85	184	88	166	79	128	61	104	50	209
7	63	94	77	95	78	70	57	84	69	62	51	48	39	21	17	122
4	86	64	74	70	81	57	66	68	79	52	60	43	50	28	33	86
1	46	345	55	390	62	226	36	325	52	216	35	221	35	96	15	626
2	76	295	64	341	74	238	51	289	62	202	44	125	27	74	16	463
8	54	272	62	308	70	233	53	272	62	192	44	114	26	75	17	437
7	80	272	76	281	78	217	60	232	65	170	47	116	32	60	17	359
6	53	139	54	176	68	111	43	139	54	125	48	85	33	62	24	258
6	85	132	77	139	81	100	58	115	67	100	58	60	35	56	33	171
9	60	592	59	640	64	421	42	552	55	408	41	190	19	95	10	996
0	79	528	71	542	73	415	56	501	67	376	50	232	31	150	20	747
8	74	235	88	235	88	173	65	211	79	176	66	143	54	79	30	266
0	92	134	88	139	91	112	73	126	82	108	71	80	52	49	32	153
4	52	216	68	228	72	152	48	183	58	148	47	82	26	50	16	317
5	85	191	79	[illegible]	75	144	60	176	73	145	60	85	35	48	20	241
5	72	234	79	254	86	213	78	229	77	195	66	156	53	84	28	297
8	90	196	84	212	91	181	78	207	89	180	78	129	56	80	34	232
2	59	2360	66	2560	71	1774	49	2226	62	1701	47	1163	32	622	17	3593
1	83	2003	75	2097	79	1641	62	1898	71	1499	56	998	38	649	24	2661

Table 7

"Yes" Responses to Workshop E

	Workshop 1								
	Career Awareness			Consumer Education			Critical Reading		
Questions	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Perc
#1 Clear objectives?	132	135	97.8%	120	125	96.0%	107	124	86.
#2 Knowledgeable presenters?	123	126	97.6%	118	122	96.7%	114	123	92.
#3 Useful materials?	125	131	95.4	120	124	96.8%	113	125	90.
#4 Relevant materials?	121	127	95.2%	116	119	97.5%	113	122	92

valuation Questions

Workshop 2									
	Low Level Reading			Classroom Management			Making Lab Materials		
ent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent
3%	100	118	84.7%	90	106	84.9%	32	32	100.0%
7%	107	116	92.2%	96	104	92.3%	33	34	97.1%
4%	102	118	86.4%	79	101	78.2%	34	34	100.0%
.6%	98	110	89.1%	74	95	77.9%	34	35	97.1%

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Descriptive Statistics for
on the Reading Subtest

	Pretest			
School	N	Mean No Objectives	Standard Deviation	N
				Nin
Targeted Schools				
Bryan Adams	67	11.8	2.88	51
Adamson	136	9.2	3.74	85
Hillcrest	22	10.5	3.58	18
North Dallas	91	8.2	3.74	63
Samuell	42	9.0	4.60	30
Spruce	115	10.3	4.19	75
White	44	9.1	4.53	32
Wilson	125	8.9	3.78	87
Business[a]	---	---	---	52
Creative Arts[a]	---	---	---	---
Transportation[a]	---	---	---	---
Health Sciences[a]	---	---	---	9
Nontargeted Schools				
Jefferson	107	11.3	2.86	82
Kimball	26	8.0	4.04	21
Pinkston	238	6.5	3.61	126
Roosevelt	101	6.6	3.68	73
Seagoville	42	9.4	3.78	32
South Oak Cliff	399	7.9	3.41	342
Sunset	24	8.4	4.49	11
Carter	104	8.1	3.78	85
Skyline	65	10.9	3.18	45

able 4

Number of Objeccives Mastered
of the Everyday Skills Test

Posttest		Gain Scores			
Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
th Grade					
12.8	2.63	46	1.5	2.34	4.36*
10.9	3.67	78	1.5	2.82	4.70*
11.9	3.17	18	1.5	2.48	2.57*
11.1	3.41	59	2.5	2.51	7.71*
10.7	4.63	28	1.9	2.22	4.42*
12.1	3.83	65	0.7	2.45	2.18*
11.3	4.29	31	2.8	3.67	4.25*
10.4	3.73	79	1.5	2.68	5.08*
12.3	2.69	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---
		---	---	---	---
12.6	2.14	80	1.0	2.26	4.10*
9.6	4.32	18	2.9	2.86	4.37*
8.1	4.00	112	1.9	3.06	6.64*
8.4	3.68	53	2.1	3.12	4.93*
11.1	3.50	28	1.8	4.55	2.03
9.7	3.60	277	2.2	3.04	11.87*
8.2	4.60	10	1.0	3.40	0.93
10.0	3.71	71	1.8	2.64	5.26*
12.4	2.80	44	1.8	3.21	3.66*

(continued)

Table

Descriptive Statistics fo
on the Reading Subtest

School	Pretest N	Pretest Mean No Objectives	Pretest Standard Deviation	N
				Te
Targeted Schools				
Bryan Adams	59	10.8	3.70	38
Adamson	126	9.3	3.70	8
Hillcrest	46	10.4	3.25	4
North Dallas	154	10.8	3.46	10
Samuell	204	12.1	3.51	15
Spruce	340	11.9	3.40	26
White	23	10.1	4.21	1
Wilson	54	9.2	4.23	3
Business[a]	---	---	---	
Creative Arts[a]	1			
Transportation[a]	---	---	---	--
Health Sciences[a]	---	---	---	
Nontargeted Schools				
Jefferson	81	11.6	2.71	6
Kimball	36	10.7	3.28	2
Pinkston	227	8.3	3.72	17
Roosevelt	159	9.7	3.73	12
Seagoville	43	9.8	3.86	
South Oak Cliff	339	8.6	3.67	20
Sunset	110	11.7	2.91	
Carter	79	8.9	3.73	
Skyline	115	11.3	3.49	

4 (continued)

r Number of Objectives Mastered
of the Everyday Skills Test

	Posttest		Gain Scores			
	Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
nth Grade						
3	11.9	3.82	36	1.8	2.14	4.99*
6	10.6	3.93	75	1.8	2.77	5.75*
2	11.0	3.45	38	0.9	2.01	2.74*
7	12.1	2.83	99	1.2	2.59	4.59*
0	12.9	3.19	145	1.1	2.18	6.20*
5	12.5	3.13	224	0.6	2.29	4.23*
6	12.5	3.16	11	1.5	3.67	1.40
3	10.1	4.04	31	0.9	3.12	1.56
5			---	---	---	---
1			---	---	---	---
-	---	---	---	---	---	---
5			---	---	---	---
3	12.9	2.06	61	1.2	2.35	4.04*
0	11.2	3.83	19	0.5	2.01	1.14
3	9.4	4.04	163	1.3	2.29	7.26*
2	10.5	3.70	96	0.9	2.53	3.47*
1	10.9	3.98	28	1.1	4.10	1.48
6	9.6	3.60	176	1.5	2.56	7.56*
6	11.9	3.00	43	0.7	2.56	1.79
8	10.3	3.75	52	1.9	2.82	4.86*
8	12.0	3.29	81	0.9	1.67	4.73*

Table 4

Descriptive Statistics for Number of Objectives Mastered on the Reading Subtest of the Everyday Skills Test

School	Pretest			Posttest			Gain Scores			
	N	Mean No Objectives	Standard Deviation	N	Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
					Ninth Grade					
Targeted Schools										
Bryan Adams	67	11.8	2.88	51	12.8	2.63	46	1.5	2.34	4.36*
Adamson	136	9.2	3.74	85	10.9	3.67	78	1.5	2.82	4.70*
Hillcrest	22	10.5	3.58	18	11.9	3.17	18	1.5	2.48	2.57*
North Dallas	91	8.2	3.74	63	11.1	3.41	59	2.5	2.51	7.71*
Samuell	42	9.0	4.60	30	10.7	4.63	28	1.9	2.22	4.42*
Spruce	115	10.3	4.19	75	12.1	3.83	65	0.7	2.45	2.18*
White	44	9.1	4.53	32	11.3	4.29	31	2.8	3.67	4.25*
Wilson	125	8.9	3.78	87	10.4	3.73	79	1.5	2.68	5.08*
Business[a]	---	---	---	52	12.3	2.69	---	---	---	---
Creative Arts[a]	---	---	---	---	---	---	---	---	---	---
Transportation[a]	---	---	---	---	---	---	---	---	---	---
Health Sciences[a]	---	---	---	9			---	---	---	---
Nontargeted Schools										
Jefferson	107	11.3	2.86	82	12.6	2.14	80	1.0	2.26	4.10*
Kimball	26	8.0	4.04	21	9.6	4.32	18	2.9	2.86	4.37*
Pinkston	238	6.5	3.61	126	8.1	4.00	112	1.9	3.06	6.64*
Roosevelt	101	6.6	3.68	73	8.4	3.68	53	2.1	3.12	4.93*
Seagoville	42	9.4	3.78	32	11.1	3.50	28	1.8	4.55	2.03
South Oak Cliff	399	7.9	3.41	342	9.7	3.60	277	2.2	3.04	11.87*
Sunset	24	8.4	4.49	11	8.2	4.60	10	1.0	3.40	0.93
Carter	104	8.1	3.78	85	10.0	3.71	71	1.8	2.64	5.26*
Skyline	65	10.9	3.18	45	12.4	2.80	44	1.8	3.21	3.66*

(continued)

Table 4 (continued)

Descriptive Statistics for Number of Objectives Mastered on the Reading Subtest of the Everyday Skills Test

	Pretest			Posttest			Gain Scores			
School	N	Mean No Objectives	Standard Deviation	N	Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
					Tenth Grade					
Targeted Schools										
Bryan Adams	59	10.8	3.70	38	11.9	3.82	36	1.8	2.14	4.99*
Adamson	126	9.3	3.70	83	10.6	3.93	75	1.8	2.77	5.75*
Hillcrest	46	10.4	3.25	42	11.0	3.45	38	0.9	2.01	2.74*
North Dallas	154	10.8	3.46	107	12.1	2.83	99	1.2	2.59	4.59*
Samuell	204	12.1	3.51	150	12.9	3.19	145	1.1	2.18	6.20*
Spruce	340	11.9	3.40	265	12.5	3.13	224	0.6	2.29	4.23*
White	23	10.1	4.21	15	12.5	3.16	11	1.5	3.67	1.40
Wilson	54	9.2	4.23	38	10.1	4.04	31	0.9	3.12	1.56
Business[a]	---	---	---	5			---	---	---	---
Creative Arts[a]	1			1			---	---	---	---
Transportation[a]	---	---	---	---	---	---	---	---	---	---
Health Sciences[a]	---	---	---	5			---	---	---	---
Nontargeted Schools										
Jefferson	81	11.6	2.71	63	12.9	2.06	61	1.2	2.35	4.04*
Kimball	36	10.7	3.28	20	11.2	3.83	19	0.5	2.01	1.14
Pinkston	227	8.3	3.72	173	9.4	4.04	163	1.3	2.29	7.26*
Roosevelt	159	9.7	3.73	122	10.5	3.70	96	0.9	2.53	3.47*
Seagoville	43	9.8	3.86	31	10.9	3.98	28	1.1	4.10	1.48
South Oak Cliff	339	8.6	3.67	206	9.6	3.60	176	1.5	2.56	7.56*
Sunset	110	11.7	2.91	46	11.9	3.00	43	0.7	2.56	1.79
Carter	79	8.9	3.73	58	10.3	3.75	52	1.9	2.82	4.86*
Skyline	115	11.3	3.49	98	12.0	3.29	81	0.9	1.67	4.73*

Table 4 (continued)

Descriptive Statistics for Number of Objectives Mastered on the Reading Subtest of the Everyday Skills Test

	Pretest			Posttest			Gain Scores			
School	N	Mean No Objectives	Standard Deviation	N	Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
Eleventh Grade										
Targeted Schools										
Bryan Adams	70	11.9	3.13	50	12.1	3.22	48	0.7	2.54	1.93
Adamson	78	9.5	3.96	50	11.0	3.32	46	2.0	2.46	5.52*
Hillcrest	28	11.4	2.56	23	12.4	2.50	16	1.2	3.49	1.36
North Dallas	112	12.2	2.46	85	13.8	1.30	77	1.7	1.98	7.35*
Samuell	74	12.1	3.78	57	12.8	3.38	52	1.0	1.56	4.62*
Spruce	211	11.9	3.29	180	12.5	2.93	144	0.7	2.35	3.33*
White	60	11.7	2.94	49	12.7	2.56	38	1.4	1.95	4.32*
Wilson	56	10.9	3.87	37	10.9	3.60	31	1.3	2.73	2.70*
Business[a]	1			2			---	---	---	---
Creative Arts[a]	4			11			4		---	
Transportation[a]	1			1			---	---	---	---
Health Sciences[a]	1			4			---	---	---	---
Nontargeted Schools										
Jefferson	70	11.9	2.62	55	13.4	2.41	50	1.3	2.40	3.88*
Kimball	59	10.6	3.37	44	12.2	2.73	40	1.5	2.67	3.44*
Pinkston	106	8.8	3.70	121	10.2	3.78	73	1.4	1.95	6.01*
Roosevelt	140	10.7	3.44	97	10.6	3.38	80	1.0	2.43	3.49*
Seagoville	47	10.7	3.97	27	12.4	3.03	27	1.6	2.10	4.04*
South Oak Cliff	190	9.4	3.55	131	10.3	3.65	105	0.8	2.02	4.16*
Sunset	106	11.9	2.76	71	12.5	2.34	55	0.9	2.41	2.68*
Carter	127	10.4	3.50	88	11.6	3.02	83	1.0	2.36	3.68*
Skyline	108	11.9	3.13	82	12.7	2.73	73	0.9	1.74	4.25*

Table 4 (continued)

Descriptive Statistics for Number of Objectives Mastered on the Reading Subtest of the Everyday Skills Test

School	Pretest			Posttest			Gain Scores			t Statistic[b]
	N	Mean No Objectives	Standard Deviation	N	Mean No Objectives	Standard Deviation	N	Mean	Standard Deviation	
Twelfth Grade										
Targeted Schools										
Bryan Adams	34	11.4	3.93	32	12.8	3.84	28	1.0	2.27	2.25*
Adamson	13	10.1	4.27	11	12.5	2.58	9			
Hillcrest	11	8.6	3.64	13	11.1	4.09	8			
North Dallas	14	9.6	4.47	16	12.9	2.75	11	2.6	2.58	3.39*
Samuell	10	10.4	4.23	10	11.[illegible]	3.34	7			
Spruce	40	11.1	3.51	28	11.4	4.43	19	1.0	3.56	1.22
White	47	12.1	3.33	32	13.6	1.61	30	1.5	2.24	3.75*
Wilson	3			3			3			
Business[a]	11	14.5	1.21	14	14.6	0.65	11	0.0	0.78	0.00
Creative Arts[a]	20	14.3	1.68	23	13.6	2.84	19	-0.2	2.81	-0.24
Transportation[a]	1			1			---	---	---	---
Health Sciences[a]	2			15	13.2	2.42	2			
Nontargeted Schools										
Jefferson	16	12.8	1.95	11	12.6	3.17	11	0.3	3.80	0.24
Kimball	1			1			---	---	---	---
Pinkston	55	9.1	3.95	43	10.2	4.50	40	0.7	3.07	1.49
Roosevelt	35	9.6	3.85	66	11.0	3.65	24	1.5	2.65	2.85*
Seagoville	2			2			2			
South Oak Cliff	64	10.3	3.12	67	11.5	3.23	37	1.4	2.30	3.78*
Sunset	24	12.3	3.41	23	13.1	3.03	18	0.7	1.61	1.76
Carter	7			10			6			
Skyline	9			7			6			

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*The probability that these gain scores is due to chance is less than 0.05.

[a] ESAA Special II schools (Magnet High Schools) [b] Descriptive Statistics were not computed for $n < 10$.

As indicated by Table 4, ninth-grade students at all eight targeted ESAA Basic high schools and seven of the nine non-targeted schools (Jefferson, Kimball, Pinkston, Roosevelt, South Oak Cliff, Carter, and Skyline); tenth-grade students at six targeted ESAA Basic schools (Bryan Adams, Adamson, Hillcrest, North Dallas, Samuell, and Spruce) and six non-targeted schools (Jefferson, Pinkston, Roosevelt, South Oak Cliff, Carter, and Skyline); eleventh-grade students at six targeted schools (Adamson, North Dallas, Samuell, Spruce, White, and Wilson) and all non-targeted schools; and twelfth-grade students at three targeted schools (Bryan Adams, North Dallas, and White) and two non-targeted schools (Roosevelt and South Oak Cliff) demonstrated significant gains in the number of objectives mastered on the posttest over those mastered on the pretest.

5. The final report for the 1975-76 ESAA Basic Program reported that the mean number of objectives mastered by the 224 twelfth-grade students enrolled in ESAA programs during the 1975-76 academic year was 11.9. The standard deviation for these scores was 2.25. The mean number of objectives mastered by the 198 twelfth-grade ESAA students during 1976-77 was 12.8 and the standard deviation was 3.09. Reports numbered IR77-011-3-12-1 to IR77-011-3-12-5, *Functional Level Performance Profiles, 1977*, indicate that the mean number of objectives mastered by the 5,902 twelfth-grade students was 13.9. From the information contained in these reports, it was not possible to calculate a standard deviation. The performance of the twelfth-grade students enrolled in the 1976-77 ESAA Program was significantly greater than the performance of the 1975-76 ESAA students (t=3.38, df=420, p .05).

6. Table 5 presents the comparisons between expected posttest scores and actual posttest scores on the vocabulary subtest for all secondary reading students who were tested on both the pretest and the posttest.

   As indicated in Table 5, comparison of expected vocabulary performance scores with the students' actual vocabulary performance on the posttest revealed that ninth-grade students in two targeted ESAA Basic schools (North Dallas and Samuell) and one non-targeted school (South Oak Cliff), tenth grade students in one non-targeted school (Carter), eleventh-grade students in one non-targeted school (Pinkston) and twelfth-grade students in one non-targeted school (Roosevelt) demonstrated significantly higher posttest scores than was expected for a nontreatment condition. However, tenth grade students at one non-targeted school (Skyline), eleventh-grade students in two targeted ESAA Basic schools (North Dallas and Spruce) and twelfth-grade students in one targeted ESAA school (White) demonstrated actual performance scores that were significantly lower than was expected under a nontreatment condition.

   Comparison of expected performance and actual performance scores on the reading comprehension subtest indicated that only ninth grade students in two nontargeted schools (South Oak Cliff and Carter) demonstrated significantly higher performance than would be expected under a nontreatment condition. However, ninth-grade students in one nontargeted school (Roosevelt), and tenth-grade students in one targeted ESAA Basic school (Samuell) and one nontargeted school (Jefferson) demonstrated significantly lower scores than would have been expected under a nontreatment condition.

Table 5

Schools and Grades Where Significant Differences Between Expected and Observed Posttest Scores Were Found

	Vocabulary				Reading Comprehension			
School/Grade	9	10	11	12	9	10	11	12
Targeted Schools								
Bryan Adams								
Adamson				0				0
Hillcrest				0				0
North Dallas	+		-	0				0
Samuell	+			0		-		0
Spruce			-					
White				-				
Wilson				0				0
Special II Schools								
Business		0	0	0		0	0	0
Health Sciences		0	0	0		0	0	0
Nontargeted Schools								
Jefferson						-		
Kimball				0				0
Pinkston			+					
Roosevelt				+	-			
Seagoville				0				0
South Oak Cliff	+				+			

(continued)

Table 5 (continued)

Schools and Grades Where Significant Differences Between Expected and Observed Posttest Scores Were Found

School/Grade	Vocabulary 9	Vocabulary 10	Vocabulary 11	Vocabulary 12	Reading Comprehension 9	Reading Comprehension 10	Reading Comprehension 11	Reading Comprehension 12
Nontargeted Schools								
Sunset								
Carter		+		0	+			0
Skyline		-		0				0

Note: A "+" indicates that the observed posttest scores were significantly higher than the expected scores under a nontreatment condition, a "-" indicates that observed posttest scores were significantly lower than expected, and a "0" indicates that there was insufficient data.

7. During the 1976-77 school year two workshops were held, one on October 16, 1976, and the other on January 15, 1977. These were attended by secondary reading teachers, teacher aides, and resource teachers as well as a few in the category, "other." They represented all funded projects of ESAA secondary reading, i.e., Basic, Pilot, Special I, Special II, and the private nonprofit schools, as well as the nontargeted high schools. One hundred-thirty-five participants at the first workshop and 155 at the second responded to questionnaires concerning their perceptions of the workshop. Each workshop included three sessions on different topics. At the first workshop, participants were expected to attend all three workshops (Career Awareness, Consumer Education, and Critical Reading). At the second workshop, participants could choose to attend either the workshop sessions on Low Level Readers and Classroom Management or the session on Making Things for the Reading Lab. Participants responded "yes" or "no" to four questions concerning the sessions they attended. These questions were:

   1. Were the objectives of the workshop clearly communicated to you during the session?

   2. Did the presenters of the workshop appear knowledgeable about the subject?

   3. Do you feel that the use of the materials discussed in the workshop will help you in your classroom?

   4. Were the materials relevant to teaching reading in your classroom?

As Table 6 shows, responses were very positive. The response to all questions for all sessions was "yes" by more than 77% of those who responded to the items. In most cases, more than 90% of the respondents said "yes".

Participants were also asked if they would like to serve as presenters in future workshops. Thirty-nine participants (28.9%) at the first workshop and 35 (22.6%) at the second said yes. Fifty-three (39.3%) at the first and 54 (34.8%) at the second said no. Forty-three (31.9%) and 66 (42.6%), respectively did not respond to that item.

They were then asked if they would like to participate as learners in future workshops. One hundred-twenty-six (93.3%) at the first workshop and 130 (83.9%) at the second said yes. One (0.7%) at the first and 7 (4.5%) at the second said no. Eight (5.9%) and 18 (11.6%) respectively did not respond to the item.

8. Excellent examples of programs in reading were outlined by reading researchers. A study made by the National Instutute of Education, in which 222 selected reading programs were summarized was especially informative. The study provided the program size and target population, the starting date, the characteristics of the staff, the major features, data concerning the facilities, materials and equipment, the cost, and additional information for each of 222 reading programs.

Examples of other reading programs which functioned in intermediate, middle, and secondary schools were outlined by reading researchers. The programs included one utilizing parents and teaching partners, a volunteer program utilizing 10,000 volunteers, a program in the Philadelphia school district utilizing videotaped television programs and program scripts, and a content area program.

Many researchers in the reading field wrote about a particular technique they felt teachers could use to improve reading comprehension (open-ended stories, silent reading, cloze procedure), to help them analyze the students' reading process (miscue analysis), or to measure achievement (maze technique).

For further details on these programs and techniques and for information concerning other aspects of reading research refer to Report No. EE77-074-7-1.

Table 7

"Yes" Responses to Workshop Evaluation Questions

Questions	Workshop 1									Workshop 2								
	Career Awareness			Consumer Education			Critical Reading			Low Level Reading			Classroom Management			Making Lab Materials		
	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent
#1 Clear objectives?	132	135	97.8%	120	125	96.0%	107	124	86.3%	100	118	84.7%	90	106	84.9%	32	32	100.0%
#2 Knowledgeable presenters?	123	126	97.6%	118	122	96.7%	114	123	92.7%	107	116	92.2%	96	104	92.3%	33	34	97.1%
#3 Useful materials?	125	131	95.4	120	124	96.8%	113	125	90.4%	102	118	86.4%	79	101	78.2%	34	34	100.0%
#4 Relevant materials?	121	127	95.2%	116	119	97.5%	113	122	92.6%	98	110	89.1%	74	95	77.9%	34	35	97.1%

Additional Information:

EE77-75-9-1 Evaluation of the 1976-77 Emergency School Aid Act Basic Project and Speical II Project, 1977, Wayne E. Carter, Sally Akers, Kathy Cannon, Patricia Dagley, Sharon Haywood, Napolean Mitchell.

76-880 Evaluation of the 1975-76 ESAA Secondary Reading Program, 1976, Wayne E. Carter.

76-908 Evaluation of the 1975-76 ESAA Pilot Reading Project, 1976, Wayne E. Carter.

75-589 Evaluation of ESAA Secondary Reading Project, 1975, Robert P. Grobe, Melinda Knecht, 151 Pages.

74-25[illegible] Evaluation report for the ESAA Secondary Reading Project, 1974, Robert P. Grobe, 182 pages.

74-237 Context Evaluation Report: A General Description of the Secondary Reading Project, 1974, Robert P. Grobe, 12 pages.

Abstract

Evaluation of the 1976-77
Emergency School Aid Act, Pilot Project

Evaluators: Wayne E. Carter
Sally Akers
Kathy Cannon
Patricia Dagley
Sharon Haywood
Napoleon Mitchell

Objectives of the Program: During the 1976-77 school year, the Emergency School Aid Act (ESAA) Pilot Project Grant funded a remedial reading program for students in seven middle schools. The objectives centered around the diagnosis of each targeted student's reading ability, the prescription or plan of action for each student and the remediation provided through individualized instruction designed to aid the students in overcoming their reading disabilities. In addition, the proposal called for utilization of volunteers and paid tutors and a concerted effort to involve parents in the program through seminars, individual parent involvement sessions, and reports and samples of students' work and progress.

Purpose of the Evaluation: The objective of the Evaluation component was to delineate, obtain, and provide useful, descriptive and informative feedback for process decision-making. To accomplish this objective a process evaluation report was written to summarize and present information concerning different activities during the 1976-77 school year. In addition, this component was to provide end-of-year summative information.

Sample: Selection of students for the Pilot reading program was made through teacher recommendation and testing. Students reading two or more years below grade placement, depending on the school, were admitted to the programs in the seven Pilot middle schools (W. H. Atwell, E. B. Comstock, O. W. Holmes, D. A. Hulcy, T. J. Rusk, A. W. Spence, and B. Storey). A total of 3,265 students participated in the program. Pretest data were available for 2,545 students (vocabulary test) and 2,529 students (reading comprehension test). Posttest data were available for 1,836 and 2,086 students respectively for vocabulary and comprehension. The numbers of students having both pre- and posttest data were 1,631 and 1,848 respectively for vocabulary and comprehension.

Evaluation Design:

The major evaluation questions were:

1. What were the characteristics of the ESAA Pilot Project as it was implemented in each school?

2. What instructional activities related to the design of the project were applied in those schools and classrooms where the project was implemented?

3. What was the extent of parent, student, and community involvement in the reading program?

4. To what extent were the students in the Pilot Project involved in tutoring?

5. What was the distribution of gains in achievement on the Iowa Tests of Basic Skills from pre- to posttest for students served by the ESAA Pilot Project?

6. What were the differences in proportions of students demonstrating mastery of pre- and posttest objectives for each objective measured by the Everyday Skills Test?

7. Did the posttest performance of students on a standardized reading test exceed the expected performance for a nontreatment condition?

8. What were the perceptions of the project staff regarding the effectiveness of training sessions for implementation of the project?

9. What were the national trends in remedial reading courses in the middle school?

The methods utilized in evaluating these questions are listed below:

1-4 Questionnaires and classroom observations were utilized in answering these questions. Two separate questionnaries were mailed to the reading and resource teachers in November and February. Supplementary teachers were also mailed questionnaires in February. A random sample of 25% of the reading teachers at each school was selected for classroom observations.

5-7 All seventh- and eighth-grade reading students were administered a pretest of the Iowa Tests of Basic Skills and the Everyday Skills Test in the fall and administered the posttest for both tests in the spring.

8 Participants at the two workshops held for the reading staff on October 16, 1976, and January 15, 1977, were administered questionnaires. One hundred-thirty-five participants at the first workshop and 155 at the second workshop responded to the questionnaires.

9 A literature review was conducted by evaluation personnel to determine the national trends in reading.

Evaluation Results:

1. A remedial reading pilot project was implemented in seven middle schools: W. H. Atwell, E. B. Comstock, O. W. Holmes, D. A. Hulcy, T. J. Rusk, A. W. Spence, and Boude Storey. Resource teachers at these schools reported that 3,265 students were enrolled in the Pilot Reading Program during the 1976-77 school year, an increase of 619 from 1975-76. Table 1 presents a breakdown for each school. The average class size was reportedly 19.

   The reading staff for each school consisted of one resource teacher, teacher aide(s), home-school liaison(s), reading teachers and supplementary teacher(s), with the exception of two schools, Rusk and Spence. According to the facilitator, supplementary teachers for these two schools were assigned to other schools in order to accommodate the large enrollment. In addition, the staff included paid tutors and volunteers (see Table 2).

2. Eight teachers were observed while they taught reading. The instructional activities most frequently observed were: written work, silent reading, and oral reading.

   Thirteen (65%) of the 20 reading teachers who responded to the February survey reported that they provided individualized instruction for students, six (30%) reported that they did not, and one (5%) did not respond. Of the 13 teachers who taught reading on an individualized basis, 11 (85%) indicated that they utilized groups, four (31%) utilized the entire class, three (23%) utilized individual assignments, and one (8%) did not respond.

3. Information collected from the first process evaluation in November showed that in all schools some type of tutoring program involving parents, students and community people was functioning (see Table 2). However, when resource teachers were surveyed in February, three (43%) reported that a tutoring program existed in their schools, three (43%) reported that no tutoring program existed, and one (14%) did not respond.

   Some type of contact with parents of the reading students was reported by all of the teachers and resource teachers. Types of contact made by the resource teachers included (a) home visits, (b) parent information meetings, (c) PTA, (d) parent conferences, (e) telephone calls, and (f) letters. Classroom teachers contacted parents to introduce them to the reading program, for disciplinary reasons or to deliver material to them. Sixteen (76%) of the teachers contacted parents by telephone, nine (43%) by letter and two (10%) in person.

Table 1

Descriptive Data by School

Name of School	Number of Reading Students	Percentage of Reading Students to Total Students	Number of Teachers	Number of Supplementary Teachers	Number of ESAA Aides	Number of Locally-Funded Aides	Number of Home-School Liaisons	Reading Class Average Student/ Teacher Ratio
W. H. Atwell	105	23%	1	1	1	0	1	9:1
E. B. Comstock	370	27%	3	2	1	0	1	19:1
O. W. Holmes	934	46%	6	2	1	0	1	24:1
D. A. Hulcy	534	80%	3	1	1	1	1	22:1
T. J. Rusk	135	19%	3	0	1	0	2[a]	15:1
A. W. Spence	241	42%	2	0	1	0	2[a]	20:1
B. Storey	946	52%	12	2	1	0	1	21:1
TOTALS	3,265	43%	30	8	7	1	7	19:1

[a] Rusk and Spence served by the same two home-school liaisons.

Table 2

Classroom Tutors

Type of Tutor	Number of tutors (total hours spent in classroom per week)													
	Atwell		Comstock		Holmes		Hulcy		Rusk		Spence		Storey	
Paid Tutor	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
Adopt-A-School Volunteers	0	(0)	40	(-)	28	(56)	0	(0)	40	(15)	4	(6)	4	(4)
Parent or Community Volunteers	1	(2)	5	(10)	2	(5)	1	(3)	12	(4)	2	(-)	1	(3)
Student Advisory Committee	8	(-)	9	(9)	14	(0)	12	(-)	9	(4)	3	(1)	0	(0)
Peer Tutors	1	(-)	0	(0)	0	(0)	0	(0)	8	(18)	26	(6)	0	(0)

Note. (-) = Unknown.

4. Three (43%) of the resource teachers reported that a peer tutoring program was functioning in their schools and providing beneficial assistance to the students; three (43%) of the resource teachers reported that they did not have a tutoring program, and one (14%) did not respond.

5. Descriptive statistics for gain scores are presented in Table 3. Seventh-grade students in five of the Pilot middle schools (E. B. Comstock, O. W. Holmes, T. J. Rusk, A. W. Spence, and B. Storey) and eighth-grade students in two of the schools (O. W. Holmes and B. Storey) demonstrated significant gains in vocabulary grade equivalent scores. It should be pointed out that at D. A. Hulcy, on the vocabulary subtest, 176 seventh-grade students took the pretest compared to 26 students who took the posttest and 136 eighth-grade students took the pretest as compared to 14 who took the posttest. For this reason the scores on the vocabulary subtest for D. A. Hulcy were deleted from the analyses.

   For the reading comprehension subtest, seventh-grade students demonstrated significant gains in six schools (W. H. Atwell, O. W. Holmes, T. J. Rusk, A. W. Spence, B. Storey, and D. A. Hulcy). Eighth-grade students demonstrated significant gains in one school (D. A. Hulcy). Eighth-grade students at two schools (W. H. Atwell and E. B. Comstock) scored significantly lower on the posttest than the pretest.

Table 3

Descriptive Statistics for Grade Equivalent Scores on the Vocabulary and Reading Comprehension Subtests of the Iowa Tests of Basic Skills

	Pretest			Posttest			Difference Scores			
School	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	t Statistic
Vocabulary Subtest - Seventh Grade										
Atwell	63	4.3	1.21	46	4.2	1.01	46	0.2	1.12	1.13
Comstock	185	3.4	1.02	135	3.7	1.03	129	0.4	1.22	3.36*
Holmes	346	3.9	1.18	361	4.9	1.60	263	0.5	1.02	7.89*
Rusk	77	4.4	1.43	66	4.5	1.32	65	0.3	0.92	2.38*
Spence	110	3.7	1.44	77	4.2	1.45	76	0.4	1.37	2.79*
Storey	435	3.3	1.19	337	3.8	1.08	336	0.5	1.17	7.73*
Vocabulary Subtest - Eighth Grade										
Atwell	50	4.7	1.22	31	4.4	1.06	31	0.1	1.08	0.30
Comstock	149	4.0	1.05	107	3.9	1.19	98	0.0	1.54	-0.31
Holmes	394	5.0	1.91	280	4.9	1.44	239	0.5	1.16	6.51*
Rusk	39	4.4	1.11	34	4.5	1.19	32	0.1	1.10	0.58
Spence	94	4.7	1.66	66	4.7	1.65	63	0.3	1.39	1.72
Storey	291	3.8	1.17	256	4.3	1.21	217	0.4	1.38	4.88*

(continued)

Table 3 (continued)

Descriptive Statistics for Grade Equivalent Scores on the Vocabulary and Reading Comprehension Subtests of the Iowa Tests of Basic Skills

	Pretest			Posttest			Difference Scores			
School	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	t Statistic
Reading Comprehension Subtest - Seventh Grade										
Atwell	63	4.0	1.05	45	4.2	1.00	45	0.4	0.93	2.93*
Comstock	185	3.5	0.95	140	3.6	0.92	133	0.2	1.21	1.90
Holmes	346	3.8	1.06	356	4.7	1.67	256	0.3	1.04	4.33*
Rusk	77	4.3	1.32	64	4.4	1.27	63	0.3	0.89	2.36*
Spence	110	3.7	1.44	79	4.1	1.28	78	0.2	0.98	2.11*
Storey	435	3.2	1.09	332	3.6	1.17	327	0.4	1.31	5.48*
Hulcy	176	4.2	1.14	147	4.8	0.95	135	0.7	1.19	6.68*
Reading Comprehension Subtest - Eighth Grade										
Atwell	50	5.0	0.93	33	3.9	1.02	33	-0.8	1.21	-3.95*
Comstock	149	4.5	0.95	114	4.2	0.97	106	-0.3	1.33	-2.21*
Holmes	391	5.1	1.74	281	4.6	1.32	238	0.2	1.34	1.92
Rusk	39	4.7	0.92	34	4.8	1.06	32	0.2	1.13	1.08
Spence	91	4.4	1.31	71	4.3	1.37	65	0.2	1.65	0.86
Storey	282	4.2	1.05	266	4.0	1.15	225	-0.2	1.37	-1.72
Hulcy	135	4.2	1.23	124	5.2	1.19	112	1.1	1.52	7.83*

*$p < .05$

Performance level of students was far below grade level even in those schools where students demonstrated significant gains. At the seventh-grade level, mean posttest grade equivalent scores ranged from 3.7 (E. B. Comstock) to 4.9 (O. W. Holmes) on the vocabulary subtest and from 3.6 (B. Storey and E. B. Comstock) to 4.8 (D. A. Hulcy) on the reading comprehension subtest. At the eighth-grade level, mean posttest grade equivalent scores ranged from 3.9 (E. B. Comstock) to 4.9 (O. W. Holmes) on the vocabulary subtest and 3.9 (W. H. Atwell) to 5.2 (D. A. Hulcy) in reading comprehension.

Differences in mean grade equivalent scores for seventh and eighth grades on the posttests of the vocabulary and reading comprehension subtests were minimal. In two schools (O. W. Holmes and T. J. Rusk) the seventh- and eighth-grade students' mean grade equivalent scores on the posttest were equal on the vocabulary subtest. On the reading comprehension subtest at two schools (W. H. Atwell and O. W. Holmes) seventh-grade students had higher mean grade equivalent scores on the posttest than eighth-grade students.

6. The increases in proportion of students demonstrating mastery of each objective from pretest to posttest for the Pilot middle schools were: Objective 1--7%, Objective 2--9%, Objective 3--14%, Objective 4--8%, Objective 5--13% Objective 6--13%, Objective 7--9%, Objective 8--34%, Objective 9--15%, Objective 10--11%, Objective 11--14%, Objective 12--14%, Objective 13--11%, Objective 14--7%, and Objective 15--7%. For Objective 1 the differences in proportion of students demonstrating mastery from pretest to posttest ranged from 4% (Atwell) to 11% (Comstock); for Objective 2 it ranged from 3% (Atwell) to 13% (Comstock); for Objective 3 from 6% (Rusk) to 20% (Storey), for Objective 4 from 2% (Storey) to 15% (Rusk), for Objective 5 from -2% (Atwell) to 19% (Hulcy), for Objective 6 from 0% (Atwell) to 19% (Hulcy and Spence), for Objective 7 from 2% (Atwell) to 15% (Hulcy), for Objective 8 from 23% (Atwell) to 40% (Hulcy), for Objective 9 from 1% (Atwell) to 24% (Spence), for Objective 10 from -1% (Atwell) to 25% (Rusk), for Objective 11 from 11% (Rusk) to 21% (Spence), for Objective 12 from -6% (Atwell) to 25% (Hulcy), for Objective 13 from 5% (Atwell) to 19% (Hulcy), for Objective 14 from -1% (Comstock) to 15% (Spence), and for Objective 15 from -2% (Atwell) to 14% (Spence). See Table 4 for breakdown by school.

   Significant gains in the number of objectives mastered on the posttest over those mastered on the pretest were demonstrated by seventh-grade students at Comstock, Holmes, Rusk, Spence, Storey and Hulcy and by eighth-grade students at all seven schools (see Table 5).

Table 4

Number and Percent of Students Mastering Each Objective on the Everyday Skills Test - Reading Subtest on the Pretest and Posttest

School		Objectives																														Total Number of Students Tested
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Atwell	Pre	110	98	99	88	72	64	61	54	84	75	85	76	77	69	66	59	74	66	84	75	48	43	77	69	48	43	28	25	21	19	112
	Post	87	94	85	91	70	75	60	65	68	73	71	76	66	71	76	82	62	67	69	74	54	58	59	63	45	48	25	27	16	17	93
Comstock	Pre	267	78	254	74	176	51	147	43	169	49	157	46	173	50	107	31	139	41	174	51	72	21	137	40	76	22	71	21	42	12	343
	Post	247	89	242	87	184	66	148	53	164	59	161	58	162	58	187	68	158	57	184	66	93	34	130	47	88	32	55	20	49	18	277
Holmes	Pre	792	86	720	79	611	67	486	53	578	63	586	64	644	70	443	48	539	59	636	69	389	42	516	56	404	44	241	26	208	23	917
	Post	706	94	653	87	581	77	483	64	569	76	555	74	586	78	585	78	549	73	573	76	420	56	523	70	411	55	273	36	219	29	752
Rusk	Pre	102	89	97	85	69	61	49	43	70	61	63	55	77	68	50	44	54	47	74	65	37	32	56	49	35	31	22	19	16	14	11[illegible]
	Post	91	93	88	90	66	67	57	58	68	69	67	68	73	74	78	80	57	58	88	90	42	43	70	71	48	49	23	23	25	26	98
Spence	Pre	181	90	173	86	148	74	106	53	141	70	121	60	142	71	105	52	114	57	141	70	71	35	94	47	75	37	19	9	13	6	201
	Post	149	97	145	94	131	85	100	65	131	85	121	79	126	82	134	87	124	81	117	76	87	56	106	69	78	51	37	24	31	20	154
Storey	Pre	610	80	561	74	390	51	282	37	392	51	355	47	412	54	231	30	302	40	395	52	211	28	293	38	179	23	111	15	80	10	762
	Post	559	90	525	84	442	71	241	39	409	66	381	61	403	65	420	67	331	53	401	64	256	41	320	51	192	31	114	18	93	15	623
Hulcy	Pre	308	91	295	88	228	68	184	55	219	65	203	60	228	68	141	42	176	52	188	56	117	35	170	50	106	31	58	17	40	12	337
	Post	230	95	227	94	204	84	145	60	203	84	192	79	200	83	199	82	174	72	188	78	132	55	181	75	122	50	71	29	61	25	242
TOTAL	Pre	2370	85	2199	79	1694	61	1315	47	1653	59	1570	56	1753	63	1143	41	1398	50	1692	61	945	34	1343	48	923	33	550	20	420	15	2786
	Post	2069	92	1965	88	1678	75	1234	55	1612	72	1548	69	1616	72	1679	75	1455	65	1620	72	1084	48	1389	62	984	44	598	27	494	22	2239

Table 5

Descriptive Statistics for the Number of Objectives Mastered on the Reading Subtest of the Everyday Skills Test

	Pretest			Posttest			Gain Score[a]			
School	N	Mean Number of Objectives	Standard Deviation	N	Mean Number of Objectives	Standard Deviation	N	Mean	Standard Deviation	t Statistic
Atwell	62	9.3	3.27	45	8.4	3.73	43	0.0	2.58	0.06
Comstock	180	6.3	3.26	136	8.3	3.47	126	1.8	3.14	6.36*
Holmes	444	8.1	4.12	370	10.2	3.75	345	1.8	2.63	12.66*
Rusk	70	7.6	3.57	64	9.6	3.27	60	2.4	2.57	7.06*
Spence	102	7.5	3.52	72	10.2	3.05	67	2.3	2.70	7.00*
Storey	414	6.1	3.15	341	8.4	3.48	321	2.3	2.74	14.83*
Hulcy	182	7.8	3.50	119	10.8	3.0	116	2.7	2.50	11.81*
Eighth Grade										
Atwell	50	9.4	3.25	48	11.2	2.72	48	1.7	2.76	4.34*
Comstock	162	6.3	3.66	141	8.0	3.70	139	1.6	3.05	6.17*
Holmes	463	8.9	4.30	378	10.2	3.93	372	1.0	2.61	7.60*
Rusk	44	7.6	3.30	34	9.5	3.40	33	1.5	2.61	3.40*
Spence	99	8.9	3.54	82	10.8	2.73	82	1.8	2.73	5.86*
Storey	345	6.5	3.24	280	8.3	3.85	277	1.8	2.85	10.24*
Hulcy	155	8.0	3.91	123	10.3	3.47	123	2.3	2.95	8.67*

*$p < .05$

[a] based upon students who had both pretest and posttest

7. Expected performance scores on the vocabulary and reading comprehension subtests of the ITBS for students enrolled in the Pilot reading program were calculated based on performance on the pretest, grade placement at the time of pretest, and length of time of instruction between the pretest and the posttest. Comparison of these expected performance scores with the students' actual performance on the posttest revealed that seventh-grade students at Storey demonstrated significantly higher posttest scores on the vocabulary subtest than was expected for a nontreatment condition (see Table 6). Eighth-grade students at Comstock demonstrated significantly lower posttest scores than was expected for a nontreatment condition. For the reading comprehension subtest, seventh-grade students and eighth-grade students at Hulcy demonstrated significantly higher posttest scores than was expected for a nontreatment condition and eighth-grade students at Atwell, Comstock, Holmes and Storey demonstrated significantly lower posttest scores than expected. (See Table 7.)

8. During the 1976-77 school year two workshops were held, one on October 16, 1976, and the other on January 15, 1977. These were attended by secondary reading teachers, teacher aides, and resource teachers as well as a few in the category, "other". They represented all funded projects of ESAA secondary reading, i.e., Basic, Pilot, Special I, Special II, and the private-nonprofit schools, as well as the nontargeted high schools. One hundred-thirty-five participants at the first workshop and 155 at the second responded to questionnaires concerning their perceptions of the workshop. At the first workshop, participants were expected to attend all three workshop sessions (Career Awareness, Consumer Education, and Critical Reading). At the second workshop participants could choose to attend either the workshop sessions on Low Level Readers and Classroom Management or the session on Making Things for the Reading Lab. Participants responded "yes" or "no" to four questions concerning the sessions they attended. These questions were:

    1. Were the objectives of the workshop clearly communicated to you during the session?

    2. Did the presenters of the workshop appear knowledgeable about the subject?

    3. Do you feel that the use of the materials discussed in the workshop will help you in your classroom?

    4. Were the materials relevant to teaching reading in your classroom?

Table 6

Comparison Between Projected Posttest Scores and Actual Posttest Scores on the Iowa Tests of Basic Skills - Vocabulary Subtest

School	Pretest Scores			Projected Posttest Scores			Actual Posttest Scores			t Statistic
	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	
Seventh Grade										
Atwell	46	4.0	0.99	46	4.4	1.08	46	4.2	1.01	-1.15
Comstock	129	3.4	0.97	129	3.7	1.06	129	3.7	1.03	0.30
Holmes	263	3.9	1.18	263	4.3	1.30	263	4.4	1.21	1.69
Rusk	65	4.2	1.28	65	4.6	1.41	65	4.5	1.33	-1.12
Spence	76	3.8	1.25	76	4.2	1.38	76	4.2	1.46	0.43
Storey	332	3.3	1.11	332	3.6	1.21	332	3.8	1.08	2.62*
Eighth Grade										
Atwell	31	4.3	1.16	31	4.7	1.26	31	4.4	1.06	-1.53
Comstock	98	3.9	0.99	98	4.2	1.08	98	3.9	1.18	-2.36*
Holmes	239	4.5	1.42	239	4.9	1.54	239	5.0	1.44	1.37
Rusk	32	4.4	1.01	32	4.8	1.09	32	4.5	1.21	-1.31
Spence	63	4.4	1.65	63	4.7	1.79	63	4.7	1.66	-0.39
Storey	217	3.8	1.13	217	4.1	1.23	217	4.2	1.21	1.38

*p < .05

Table 7

Comparison Between Projected Posttest Scores and Actual Posttest Scores on the Iowa Tests of Basic Skills - Reading Comprehension Subtest

	Pretest Scores			Projected Posttest Scores			Actual Posttest Scores			
School	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	N	Mean Grade Equivalent	Standard Deviation	t Statistic
Atwell	45	3.8	1.03	45	4.2	1.13	45	4.2	1.00	0.24
Comstock	133	3.5	0.94	133	3.8	1.04	133	3.7	0.91	-1.24
Holmes	256	3.9	1.05	256	4.2	1.15	256	4.1	1.21	-1.41
Rusk	63	4.1	1.27	63	4.5	1.39	63	4.4	1.28	-1.15
Spence	78	3.9	1.30	78	4.3	1.43	78	4.1	1.29	-1.22
Storey	327	3.2	1.00	327	3.5	1.10	327	3.6	1.17	1.14
Hulcy	135	4.1	1.04	135	4.5	1.14	135	4.8	0.95	2.63*
Eighth Grade										
Atwell	33	4.8	0.72	33	5.2	0.78	33	3.9	1.02	-5.72*
Comstock	106	4.5	0.94	106	4.9	1.02	106	4.2	0.96	-4.96*
Holmes	238	4.5	1.16	238	4.9	1.26	238	4.7	1.30	-2.44*
Rusk	32	4.6	0.84	32	5.0	0.92	32	4.8	1.09	-0.87
Spence	65	4.1	1.24	65	4.5	1.34	65	4.3	1.42	-0.83
Storey	225	4.2	1.01	225	4.6	1.10	225	4.1	1.13	-5.47*
Hulcy	112	4.1	1.19	112	4.5	1.29	112	5.3	1.19	5.13*

*p < .05

As Table 8 indicates, responses were very positive. The response to all questions for all sessions was "yes" by more than 77% of those who responded to the items. In most cases, more than 90% of the respondents said "yes".

Participants were also asked if they would like to serve as presenters in future workshops. Thirty-nine participants (28.9%) at the first workshop and 35 (22.6%) at the second said yes. Fifty-three (39.3%) at the first and 54 (34.8%) at the second said no. Forty-three (31.9%) and 66 (42.6%), respectively did not respond to that item.

They were then asked if they would like to participate as learners in future workshops. One hundred-twenty-six (93.3%) at the first workshop and 130 (83.9%) at the second said yes. One (0.7%) at the first and 7 (4.5%) at the second said no. Eight (5.9%) and 18 (11.6%) respectively did not respond to the item.

9. Excellent examples of programs in reading were outlined by reading researchers. A study made by the National Institute of Education, in which 222 selected reading programs were summarized, was especially informative. The study provided the the program size and target population, the starting date, the characteristics of the staff, the major features, data concerning the facilities, materials and equipment, the cost, and additional information for each of the 222 reading programs.

Examples of other reading programs which functioned in intermediate, middle, and secondary schools were outlined by reading researchers. The programs included one utilizing parents as teaching partners, a volunteer program utilizing 10,000 volunteers, a program in the Philadelphia School District utilizing videotaped television programs and program scripts, and a content area program.

Many researchers in the reading field wrote about a particular technique they felt teachers could use to improve reading comprehension (open-ended stories, silent reading, cloze procedure), to help them analyze the students' reading process (miscue analysis), or to measure achievement (maze technique).

For further details on these programs and for information concerning other aspects of reading research refer to Research and Evaluation Report #3377-074-7-1.

Table 8

"Yes" Responses to Workshop Evaluation Questions

Questions	Workshop 1									Workshop 2								
	Career Awareness			Consumer Education			Critical Reading			Low Level Reading			Classroom Management			Making Lab Materials		
	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent	Number of yes	Number of Respondents	Percent
#1 Clear objectives?	132	135	97.8%	120	125	96.0%	107	124	86.3%	100	118	84.7%	90	106	84.9%	32	32	100.0%
#2 Knowledgeable presenters?	123	126	97.6%	118	122	96.7%	114	123	92.7%	107	116	92.2%	96	104	92.3%	33	34	97.1%
#3 Useful materials?	125	131	95.4%	120	124	96.8%	113	125	90.4%	102	118	86.4%	79	101	78.2%	34	34	100.0%
#4 Relevant materials?	121	127	95.2%	116	119	97.5%	113	122	92.6%	98	110	89.1%	74	95	77.9%	34	35	97.1%

Additional Information:

EE77-076-3-1 Evaluation of the 1976-77 Emergency Aid Act, Pilot Project, 1977, Wayne E. Carter, Sally Akers, Kathy Cannon, Patricia Dagley, Sharon Haywood, Napoleon Mitchell.

76-908 Evaluation of the 1975-76 ESAA Pilot Reading Project, 1976, Wayne E. Carter, Sally Akers.

75-589 Evaluation of ESAA Secondary Reading Project, 1975, Robert P. Grobe, Melinda Knecht, 151 pages.

74-255 Evaluation Report for the ESAA Secondary Reading Project, 1974, Robert P. Grobe, 182 pages.

Abstract

Evaluation of Contracted Services

Description and Purpose: During the 1976-77 school year, the Dallas Independent School District contracted approximately $700,000 in services from outside agencies, institutions, and organizations. Additional services were contracted at no cost to the District. The rationale for contracting these services was generally that they would provide benefits to the DISD which the District would not otherwise be readily able to provide.

Principal Questions:

1. Did the contractor deliver in an acceptable manner?
2. How many schools, students, staff, or others actually received benefits of the contract?
3. If the service is needed next year, should this contract be renewed?
4. List benefits to DISD participants.

Procedure:

A list of contracted services and agreements was compiled from the Board documents and files. The Department of Research, Evaluation, and Information Systems developed a "Format for the Evaluation of Contracted Services." These formats were sent to appropriate District managers whose programs were most directly affected by the service. The 33 completed formats were reviewed and analyzed.

Results:

1. Thirty (30) of the formats (91%) indicated that the contractor had delivered in an acceptable manner. Only one indicated that the contractor had not delivered in an acceptable manner, while the remaining two contracts had never been finalized nor executed.
2. Taking all of these contracts together, some services were provided to all students, faculty, and schools in the DISD. In addition, services were rendered to 25,000 adult community members, 300 pre-school children, and approximately 80 undergraduate and graduate students.
3. Twenty-seven (27) of the formats (82%) recommended unequivocally that the contract be renewed. One suggested renewing the service, but with a new contractor. One format specifically indicated that the contract should not be renewed as the burden to the District was possibly greater than the benefit. Another format

indicated that funds were no longer available. Of the remaining three formats, one contained contractor request not to renew and the other two contracts had not been executed.

4. The following is a list of some of the general benefits to the District provided by these contracts:

   a. Increased reading and mathematics achievement.

   b. Provide diagnostic and evaluative services for developmentally disabled pupils.

   c. Provide training and instruction for the visually handicapped and for the deaf.

   d. Provide an active liaison between the business community and the District in matters relating to Court Ordered special programs.

   e. Additional personnel for counseling students.

   f. Educational services for exceptionally difficult and/or unusual students.

   g. Educational services for the learning disabled.

   h. Provide training for undergraduate students in the education field who would be potential DISD personnel, and provided additional classroom personnel.

   i. Provided training for future psychologists for potential DISD personnel.

   j. Provide special training for qualification of Bilingual teachers.

   k. Planning for future additions and renovations to the District's facilities.

   l. Provide additional media services.

   m. Provide television instructional services.

   n. Train minorities in evaluation skills to give them the opportunity to achieve higher administrative positions.

Table 1 presents a list of the contracts reviewed and the recommendation for renewal.

Table 1

1976-77 Contracted Services

Contract	Recommendation (If service needed this year)
1. Contract with BI Language Services for Advanced Language Training	Renew
2. Agreement between East Texas State University and the Dallas Independent School District	Renew
3. Contract with Texas Woman's University for the Bilingual Education Centro de Accion (BECA) Program	Renew
4. Letter of Agreement with El Centro College for Bilingual Teacher Aide Training	Renew
5. Contracts with universities for Practicum Course for Graduate School Psychology students	
a. East Texas State	Renew
b. Southern Methodist Univ.	Renew
c. University Affiliated Center	Renew
d. North Texas State University	Renew
e. Texas Woman's University	Renew
f. University of Texas at Austin	Renew
g. University of Southern Mississippi	Renew
6. Contract with the University of Texas at Arlington for social work students	Renew
7. Educational Media and Equipment Services Contract with Region X Education Service Center	Renew
8. Computer Assisted Instruction Agreement	Renew
9. Cooperative Agreement between the Dallas Independent School District and the University of Texas Health Science Center at Dallas	Renew

Table I (Continued)

Contract	Recommendation (If service needed this year)
10. Contract with the State Commission for the Blind and the Dallas Association for the Visually Handicapped	Renew
11. Title VI C Funds for Deaf-Blind Program at Callier Center	Renew
12. Contracts for Educational Services with Non-Public Schools	Renew
13. Cooperative Agreement between the Dallas Independent School District and the University of Texas at Dallas	Renew
14. Agreement between the Texas Rehabilitation Commission, Dallas Independent School District, and offices of the Regional Day School Program for the Deaf	Renew
15. Contract with Dallas County Mental Health and Mental Retardation to cooperate in Project Zero Reject	Renew
16. Child Find Project Agreement with Educational Service Center	Do not renew - no funds
17. Contract between the Dallas Independent School District and Callier Center for Communication Disorders	Renew a contract - consider new contractor
18. Physical and Occupational Therapy for W. B. Carrell School	Contractor requested discontinuance under new legislation.
19. Contract with local area universities' Schools of Nursing for student nurse experience	Renew

Table I (Continued)

Contract	Recommendation (If service needed this year)
20. Employment of Educational Consultants	Renew
21. Contract between Housing Authority of City of Dallas and the Dallas Independent School District, 1976-1977 School Year	Renew
22. Instructional Television Services	Renew
23. Agreement with Texas Woman's University and Dallas Independent School District	Renew
24. Chamber of Commerce contract	Renew
25. Letter of Agreement between Western Michigan University and Dallas Independent School District	Do not renew
26. Use of City of Dallas Library Facilities for Dallas Independent School District students who live outside the city of Dallas	Establish
27. Agreement between Board of Regents of the University of Texas System for and on Behalf of University of Texas Health Science Center and Dallas Regional Day School for Deaf/Dallas Independent School District	Not renewed 1976-77

Additional Information:

SE77-123-9-9 Evaluation of Contracted Services, 1977, Deberie G. Adkins.

T177-039-3-9

Abstract

Quasi-Evaluation of the Title I Bilingual Education Program 1976-77

Program Objective: The overall goal of the Elementary and Secondary Education Act Title I Bilingual Education Component (BEC) was to meet the special needs of Spanish dominant children in grades K through six who were at least two or more years below grade level. The main objective was the dissemination of reading/language arts materials.

Purpose of Evaluation: The purpose of the BEC evaluation was to ascertain the extent to which the program objective was met and to provide management with information so as to improve the general level of program implementation. The objective being evaluated concerned the dissemination of reading/language arts material. Hence efforts were made to provide as detailed and meaningful data as possible within the limited domain.

Sample: Below is a list of the Title I bilingual campuses and the grades served at each as listed in the Title I Bilingual Component proposal. The bilingual supplementary curricula dealing with communication skills was to be implemented in 29 Title I public schools. Actual implementation took place at 24 (K-3) sites and three (4-6) centers. These were the schools included in this investigation.

	Grades Served		Grades Served
John Q. Adams	4-6	Anson Jones	K-3
Gabe P. Allen	K-3	Benito Juarez	K-3
Arcadia Park	NONE	S. Lanier	K-3
James Bonham	K-3	R. E. Lee	K-3
James Bowie	K-3	William Lipscomb	K-3
R. Buckner	K-3	Maple Lawn	K-3
H. Budd	K-3	Ben Milam	K-3
R. C. Burleson	4-6	Mt. Auburn	K-3
City Park	K-3	John F. Peeler	K-3
David Crockett	K-3	John Reagan	K-3
J. Dorsey	4-6	Rosemont	NONE
Fred Douglass	K-3	Stevens Park	K-3
James Fannin	K-3	Travis	K-3
Sam Houston	K-3	Winnetka	K-3
A. S. Johnston	K-3		

Evaluation Design: The proposal identified only one objective. That objective was the dissemination of materials. In an effort to measure the effectiveness of the investigation, two rounds of evaluation took place. Questionnaires were developed in order to acquire information from teachers as to whether they received reading/language arts materials and assessments. Specific questions in the 1976-77 BEC evaluation included the following:

1. Were the supplementary reading materials received in time?
2. On what date were the supplementary materials received?
3. On what date did you start utilizing the supplementary reading materials?
4. Did you receive enough supplementary reading materials?
5. Did the supplementary reading materials meet your instructional needs?
6. Do the supplementary reading materials appear to be appropriate for students on the basis of reading level?
7. Are there any other supplementary reading materials that you would like to have?
8. Please feel free to give other comments or concerns about the dissemination or quality of the Bilingual supplementary reading/language arts materials.

Evaluation Results: The interim evaluation of the BEC stressed the extent to which materials were disseminated and the quality and quantity of said materials as assessed by classroom teachers. The following results were based on data acquired from 95 classes investigated, and are shown in Table 1. Table 1 shows a breakout in two week intervals of when materials reached the classrooms. It should be noted that, as of December, 18 of 95 classes had not received their materials. The second evaluation round showed that only 17 of 81 classrooms had not received the supplemental reading materials. It was found that most of the 17 classrooms without materials were at the third grade level. It is possible that this reflects the situation that most materials available were for kindergarten through second grade. When asked if they thought the supplementary reading materials were appropriate for their students on the basis of reading level, 92 percent judged the material to be appropriate. Ninety-six percent had already started to use the material and only four percent had not started but were soon to initiate use of the supplementary reading materials. Of those teachers surveyed, 95 percent of them felt that students benefited from exposure to the supplemental materials.

While no objective was written concerning implementation start-up dates, an attempt was made to identify when materials were actually utilized in the classrooms. Table 2 identifies the approximate dates of start-up by grade level. Finally, most of the teachers polled felt that the materials were adequate but also stressed the fact that materials should be reviewed for mistakes.

TABLE 1

Approximate Classroom Arrival Dates for Bilingual Material By Grade Level

	9/3	9/17	10/1	10/14	10/29	11/12	11/24	12/10	NONE	TOTAL
K	8	1	2	1	2	1	2	2	3	22
1	9		2		1	1	3	1	6	23
2	12		3	1		1			4	21
3	9		2	2	1	1			5	20
4			1	1	1					3
5			1	1	1					3
6			1	1	1					3

TABLE 2

Approximate Classroom Start-Up Dates for Use of Supplemental Materials by Grade Level

	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	NOT STARTED
K	2	6	4	3	4	4
1	2	6	3	4	2	6
2	2	6	6	1	1	5
3	2	5	6	2	1	3
4		1	2			
5		1	2			
6		1	2			

Additional Information:

T177-039-9-9 Quasi - Evaluation of the Title I Bilingual Education Component, 1977, Thomas G. Krueck, Arturo Saldivor Lazo.

76-881 Evaluation of the, 1975-76 Bilingual Education Program, 1976, Robert J. Costello.

75-592 Evaluation of the Emergency School Aid Act (ESAA) Bilingual Education Program 1973-74, 1974, Abner Johnson, Jr., 58 pages.

74-275 Evaluation of the Bilingual Education Program (BEA) 1973-74 Product Objectives, 1974, Shirley Cochrane, 98 pages.

74-274 Evaluation Report for the Bilingual Education Program 1973-74, 1974, Wayne R. Murray, 129 pages.

73-142 Evaluation Report for the Bilingual-Multicultural Education Program 1972-73, 1973, Wayne R. Murray, 17 pages.

72-144 Evaluation of the Bilingual Multicultural Education Program Pre-service Staff Development Activities, 1972, Wayne R. Murray, 31 pages.

72-82 Bilingual- Multicultural Education Program Evaluation Report, 1971-72, 1972, Daniel J. Macy, Wayne R. Murray, 75 pages.

72-29 Bilingual Multicultural Educational Program Evaluation Design, 1972-73, Daniel J. Macy, G. Raleigh Pegram, 48 pages.

Abstract

Evaluation of the Title VII Bilingual Education
Model Demonstration Project

Evaluators: Robert J. Costello
Gwen R. White

Objective of the Program: The primary purpose of the Dallas Independent School District's Title VII Bilingual Demonstration Program is to research the effectiveness of several teaching strategies that can be employed by a school district in a bilingual education setting. These teaching strategies include the experimental comparison of various bilingual curricula with the addition of treatment variables such as a computer-assisted instruction program and a parent awareness program.

Purpose of the Evaluation: The evaluation of the demonstration project was designed to determine the overall effectiveness of the project. This project is longitudinal in nature and is planned to continue a minimum of three years. This was the first year of the project and consequently the major evaluation emphasis was placed on problems of implementation and collecting base line data.

Sample: The sample for this project consisted of approximately 370 male and female elementary school students in 12 bilingual classrooms. Three first grade classrooms at Gabe P. Allen received instruction using the ROCK n ROLL curriculum, while three first grade classrooms received instruction using the BOLAR curriculum. In addition, these students were to receive 15 minutes a day of computer-assisted instruction. Due to delays in delivery of the necessary hardware this component was not implemented. Students at two other schools were exposed to the parenting component of the project. Three first grade classrooms at James W. Fannin were selected to receive instruction using the ROCK n ROLL curriculum in conjunction with a parenting component, while three first grade classrooms at William B. Travis were selected to receive instruction using the BOLAR curriculum in conjunction with a parenting component. Control groups were originally selected from four other schools, two of these schools instructed students using the ROCK n ROLL curriculum and two utilized the BOLAR curriculum. Due to other confounding treatments at these schools the six classrooms at Gabe P. Allen were selected as the control classrooms.

Instruments: All students involved in the program received the Primary Acquisition of Languages (PAL) test. This test was administered in both Spanish and English in order to determine the oral language dominance of each student. The PAL test scores were interpreted by five language levels. Level I (0-24)

indicated that a student had virtually no communication in the language; Level II (25-46) indicated that the student had very limited communication and comprehension in the language; Level III (47-72) indicated that a student had limited communication and comprehension in the language; Level IV (73-84) indicated that a student could communicate and understand the language but needed further development; and Level V (85-100) indicated that a student could communicate and understand the language. In addition, the experimental and control groups were administered the Metropolitan Readiness Test (MRT) as pretest and posttest measures, and the Iowa Test of Basic Skills (ITBS) as a posttest for both groups.

Evaluation Design: The design utilized to obtain product evaluation data may be schematically displayed as follows:

$$O_1\ O_2\ X_1\ O_3\ O_4$$

$$O_1\ O_2\ X_2\ O_3\ O_4$$

$$O_1\ O_2\ X_3\ O_3\ O_4$$

$$O_1\ O_2\ X_4\ O_3\ O_4$$

The observation O_1 represents the PAL test, observations O_2 and O_3 represents the MRT pretest and posttest measures respectively, while O_4 represents the posttest on the ITBS. X_1 represents the experimental ROCK n ROLL curriculum plus the parental component, X_2 represents the experimental BOLAR curriculum plus the parental component, X_3 represents the BOLAR control group, while X_4 represents the ROCK n ROLL control group.

An experimental design was not utilized for process evaluation since the data collected were more of a descriptive nature. Analysis of the data consisted of summarizing and synthesizing information in order to determine the attitude of principals, teachers, parents and students towards the project.

The major evaluation questions were as follows:

1. Has the program been implemented as designed in the Title VII proposal?
2. What is the effect of the various teaching strategies on student achievement?
3. What are the attitudes of teachers, principals, parents and students toward the various teaching strategies?
4. Has the program met its objectives as described in the Title VII proposal?
5. What are some of the additional benefits of the demonstration program?

Evaluation Results:

1. The first year of the Title VII Bilingual Demonstration Project showed several of the standard problems associated with implementation of a new program. These problems included: late startup due to delayed notification of acceptance for funding; delays caused by staffing problems (vacancies due to illness, resignation, etc.); and larger delays due to problems with the manufacture and delivery of equipment. Despite these problems the parenting component of this project has been successfully implemented as designed. However, the computer-assisted instruction component encountered several serious problems that caused full implementation to be delayed till August of 1977. Much of the computer hardware necessary for this component had to be specially designed for this project. The primary delay was in the design and manufacturing of a voice synthesizer that can be controlled by a computer to produce synthetic basic language sounds to form highly understandable words in both Spanish and English. A similar machine was available but only with the capacity to synthesize sounds in English. The development of a machine to synthesize sounds in Spanish represents the first and only attempt at such a product. The computer-assisted instruction program when implemented will represent a truly unique teaching tool in bilingual education. Although the computer-assisted instruction component was not implemented, the staff utilized this time to refine the curriculum and to develop computer software that will ultimately enhance and strengthen the overall project.

   Another factor that effected both the evaluation and implementation of the project was the need for uniformity of instruction and instructional techniques. In attempting to determine which combination of teaching strategies and curriculums is most effective for use in a bilingual setting, it is critical that all other programs in the experimental classrooms be constant, and only the treatment variable be allowed to vary. This means that it is important for principals and teachers to realize that any additional programs placed in one of the experimental classrooms must be placed in all the experimental classrooms. This caused some confusion at the beginning of the school year and contributed to the overall problems of implementation. All of these problems appear to have been solved and therefore few, if any, implementation problems are anticipated for the coming year.

2. A comparison of the two curriculums (ROCK n ROLL vs BOLAR) revealed that students receiving instruction in the ROCK n ROLL curriculum showed significantly higher MRT posttest scores than students receiving instruction in the BOLAR curriculum. Table 1 presents the

MRT pretest and posttest means by curriculum.

TABLE 1

MRT Pretest and Posttest Means by Curriculum

	Curriculum		
	ROCK n ROLL	BOLAR	
Pretest	32.83	37.54	
Posttest	72.39	70.85	
Difference	39.56	33.31	
Adjusted Means	74.56	69.18	$p \leq .05$

The adjusted means were obtained from an analysis of covariance using the MRT pretest as the covariate and the MRT posttest as the dependent variable. The reader is reminded that these are first year results and may be confounded by various problems of implementation. If these results were to be replicated in next year's evaluation it should be considered a significant finding. Comparison of the parenting component with ROCK n ROLL instruction to the ROCK n ROLL control group revealed that the control group outperformed the experimental group on the MRT. However, comparison of the parenting component with BOLAR instruction to the BOLAR control group revealed no significant difference between the groups.

In an attempt to determine the possible effectiveness of the Parent Awareness Component, parents were classified by their level of participation. High participation was defined as those parents who attended at least six of the twelve scheduled parenting sessions and served as a regular volunteer. Average participation was defined as those parents who attended at least three of the twelve scheduled parenting sessions and served as an occasional volunteer, and low participation was defined as those parents who attended at least one of the twelve scheduled parenting sessions and worked only on the home activity packet. Table 2 reports the adjusted means by degree of parental participation on the MRT.

TABLE 2

MRT Adjusted Means by Parent Participation

	ROCK n ROLL			BOLAR		
	Low	Average	High	Low	Average	High
Test 1	6.99	8.36	7.97	8.81	10.09	11.32*
Test 3	6.82	6.07	6.85	6.48	6.83	7.04
Test 4	12.42	12.26	15.06*	11.58	12.26	12.29
Test 5	19.12	18.46	22.01	18.12	18.97	19.22
Test 6	5.77	3.81	4.76	5.71	6.11	6.50
Test 7	3.85	2.00	3.38	4.96	6.68	6.09
Test 8	9.70	6.25	7.50	10.97	11.83	12.43
B.T.	61.94	63.80	66.35	66.46	72.03	73.35

*$p \leq .05$

The results of the analysis of covariance revealed that in only two cases were significant differences found favoring the children of high participating parents. Again it would be expected that this effect would be larger during the second year of the project and that as parent participation increased student achievement would also increase.

Results from the analyses of the ITBS revealed that the BOLAR control group and the ROCK n ROLL control group achieved significantly higher ITBS scores than the experimental parenting groups. Gabe P. Allen was used as the control school for these comparisons. This appeared to be an appropriate control school since it was selected to be the site of the computer-assisted instruction component of the project, which was not implemented. However, the results may reflect a school effect rather than a program effect. That is, school setting, teacher attitude, student population etc. may differ between schools with regard to the program and various teaching techniques. Several of these factors will be examined in next year's evaluation. Also additional control groups will be selected to examine the possibility of school effect vs. program effect.

An additional set of analyses were undertaken using the language dominance scores from the PAL test. These analyses attempted to control for the degree of language proficiency of each child. The language dominance scores from the PAL test were used as the covariate and the ITBS test scores were used as the dependent variable. The results were similar to those reported using the MRT as the covariate. Both the BOLAR and ROCK n ROLL control groups showed significantly higher ITBS scores than the experimental parenting groups.

3. Extensive principal, teacher and parent interviews in conjunction with year long on-site observations, revealed extremely positive attitudes towards the various components of the project. Project staff is highly enthusiastic about the possible contributions that can be made to the teaching of bilingual education through this project. It was the positive attitudes of the various staff members towards the project, that greatly help minimize the impact caused by the problems of implementation.

4. Since this project is considered to be longitudinal in nature there are both long and short term objectives for the project. With respect to the short term objectives, in general, the students did not meet the achievement objective of a months gain for a month of instruction for the first year of the project. However, the parenting component appears to have met its objectives with respect to involving parents in various activities.

5. One of the major consequences of this program is the development of an active parent involvement component in two of the district's bilingual schools. The development of good techniques and procedures for involving parents is an important outcome of this project. These techniques can be easily disseminated to both bilingual and non-bilingual schools. In addition, the computer-assisted instruction component has developed several outstanding products. Included in these is a voice synthesizer, that can be controlled by a computer to produce synthetic basic language sounds to form highly understandable words in both Spanish and English. This is the only computer-assisted instruction program in the nation to utilize this feature.

Additional Information:

T477-047-9-1 Evaluation of the Title VII Bilingual Education Model Demonstration Project, 1977, Robert J. Costello, Gwen White.

Abstract

Evaluation of the 1976-77 Title IV-C Supplementary Spanish Easy Reading Materials Project

Evaluators: Gwen R. White
Robert J. Costello

Objective of the Program: The overall objectives of the Supplementary Spanish Easy Reading Materials Project (SSERM) were to develop, produce, and disseminate six consumable booklets to K-3 Bilingual Education Program classes. These booklets will be written in Spanish and stress beginning consonants and vowel sounds. Additional consonants and vowel sounds were to be sequentially included in later booklets. In addition, illustrations were to provide experiences in utilizing pictures and context clues to supplement decoding procedures. Revisions were to be made according to feedback from teachers who were involved in the program. Moreover, in order to encourage parent participation in beginning reading activities in the home, a pamphlet was to be developed, produced, and disseminated to all parents in K-3 Bilingual Education Program classrooms in the District.

Purpose of the Evaluation: The evaluation of the SSERM project was designed to determine the overall effectiveness of the project. Also, an evaluation was designed to determine if there were any significant achievement gains that could be attributed to the SSERM project.

Sample: This project consisted of 92 male and female elementary students who were involved in the Bilingual Education program. Of the 92 students previously mentioned, there were 52 first graders and 40 second graders. Students participating in this sample were selected according to the availability of classes and ease of supervision. Four classes in three schools were used as field-test sites. The schools that were involved in field-testing were as follows: Mount Auburn, Fred Douglass, and Sidney Lanier. The control group was selected from a similar population; a first and second grade class from Benito Juarez and William B. Travis elementary schools were selected. The control group consisted of 48 first grade students and 41 second grade students.

All students involved in the program received the Primary Acquisition of Languages (PAL) test. This test was administered in both Spanish and English in order to determine the oral language dominance of each student. The PAL test scores were interpreted by five language levels. Level I (0-24) indicated that a student had virtually no communication in the language; Level II (25-46) indicated that the student had very limited communication and comprehension in the language; Level III (47-72) indicated that a student had limited communication and comprehension in the language;

Level IV (73-84) indicated that a student could communicate and understand the language but needed further development; and Level V (85-100) indicated that a student could communicate and understand the language. In addition, the experimental and first grade control groups were to be administered the Metropolitan Readiness Test (MRT) as pretest and posttest measures, and the Iowa Tests of Basic Skills (ITBS) as a posttest for both groups. The second grade experimental and control groups were to receive the ITBS as pretest and posttest measures.

Evaluation Design: The design utilized to obtain product evaluation data may be schematically displayed as follows:

$$O_1 \quad X_1 \quad O_2 \quad O_3$$

$$O_1 \quad X_2 \quad O_2 \quad O_3$$

The observations (O_1 and O_2) represents the MRT pretest and posttest measures for the experimental group; (O_1 and O_2) represents the pretest and posttest measures for the control group; (O_3 and O_3) represents the ITBS posttest measure for both the control and experimental groups. X_1 represents the exposure to the SSERM project while X_2 represents the control group.

An experimental design was not utilized for process evaluation since the data collected were more of a descriptive nature. Analysis of the data consisted of summarizing and synthesizing information in order to determine the attitude of teachers toward the SSERM project.

The major evaluation questions were as follows:

1. Was the SSERM project implemented as designed in the Title IV-C proposal?
2. What were the attitudes of teachers, principals, parents, and students toward the consumable booklets and the parental involvement pamphlet?
3. To what extent did the Spanish Easy Reading Materials (consumable booklets) affect the level of reading skills of students who were involved in the program?

Evaluation Results:

1. The SSERM project did not begin its implementation until approximately September 15. Consequently, the development,

production, and dissemination of the six consumable booklets were several weeks behind schedule. According to the project's Director, the late start-up was due to the initial delay in the authorization of the proposal. Although the SSERM project was funded as a separate project in itself, it was indicated by the project Director that, at the suggestion of Dr. Granowsky, distribution of the parent involvement pamphlets and the SSERM booklets has been delayed until the August staff development session. These materials will be presented as a part of the total Compañeres in Lectura (Partners in Reading Program). However, parents of the children in the field-test classes have received the parent involvement pamphlets.

2. Teachers involved in the field-testing of the SSERM project indicated that the booklets were useful in supplementing the basal (Rock n Roll) reading program. Some of the ways mentioned were, as follows: (1) materials were easy to read; (2) booklets were used for peer tutoring; (3) "Los Thres Osos" (The Three Bears) was used as a play; (4) each booklet indicated which vowels and consonants have been used in the story and (5) students were permitted to carry the booklets home to practice reading, either alone or with their parents. Further comments concerning the booklets were made in regard to their size. Most of the teachers indicated that they would like for the booklets to have been at least 6" x 8 1/2" instead of 4 1/2" x 5 1/2". In addition, teachers indicated that the booklets should have a more sturdy cover and that the cover should be printed in bright colors in order to add to the attractiveness of the booklets. It should be pointed out that during the revision of the booklets, a more sturdy cover replaced the regular paper back and also the covers of the booklets were printed in bright colors.

   Each of the six consumable booklets were rated on the following items: (1) presentation of materials (2) vocabulary used in booklet, (3) presentation of pictures and (4) size of booklet. It should be noted that, on some occasions, a teacher was absent and did not rate a particular booklet. The ratings of each booklet will be depicted in Table 1. In order to determine how the project's Director and each teacher felt toward the SSERM project booklets, they were asked to rate each booklet after it had been field-tested. The rating of each booklet varied with each individual.

Table 1

Ratings of the SSERM Project Consumable Booklets as Perceived by Project Director and Teachers Who Were Involved in Field-Testing

Name of Booklet	Field-Test Teacher Rating of Booklets	Project Director's Rating of Booklets
Booklet Number I (Mati-Tito)	4.6	5
Booklet Number II (Ana-Sosa-Tato)	3.4	5
Booklet Number III (Los Tres Osos)	4.5	5
Booklet Number IV (Rimas con Letras)	4.4	5
Booklet Number V (Caballito y Perico)	4.9	5
Booklet Number VI (Mi Libro de Números)	4.4	5

Table 1 revealed that booklet Number II, Ana-Sosa-Tato, received the lowest rating (3.4) of the six consumable booklets, as perceived by teachers, as compared to Booklet Number V, Cabillito y Perico, which received the highest rating (4.9). Further results from questionnaires tend to indicate that Booklet Number II received the lowest rating because most teachers indicated that the presentation of materials, pictures, size of booklet and the vocabulary used in the booklet were all about "average". Moreover, Booklet Number V, Cabillito y Perico, received a "high" rating on each of the previously mentioned items. It can readily be seen that each of the six booklets received a "high" rating as perceived by the Director of the SSERM project.

Principals of the schools who were involved in the field-testing of the SSERM project stated that they felt that the booklets were helpful in supplementing the basal text (Rock n Roll). It was further stated by principals that they liked the booklets because their teachers seemed to like them. Both principals and teachers indicated that they would like for the SSERM project to be continued.

According to teachers, the students enjoyed reading the booklets because they provided success experiences in Spanish reading, which also increased their motivation to read. For students involved in the project, one of the most salient features was that after they had completed the booklet at school they were permitted to carry them home.

Both questionnaires and interviews indicated that parents did not receive the pamphlet until May. The Project Director's questionnaire indicated that only parents of children who participated in the filed-test classes had received the parent involvement booklet. In as much as parents did not receive the booklet until near the end of the school year, there was not enough time to conduct a survey of the parents.

3. The proposed experimental design was not implemented as planned because the teachers involved in field-testing the project did not test the participating students even though tests were available in both Spanish and English. Reasons from teachers for not testing students revolved around lack of proficiency in English and the belief that testing in such a situation would make the program look unreasonably bad.

Additional Information:

T477-048-9-1 Evaluation of the 1976-77 Title IV-C Supplementary Spanish Easy Reading Materials Project, 1977, Gwen R. White, Robert J. Costello.

1491

76-872

Abstract

Evaluation of the Metropolitan Alternative High School, 1975-76

Evaluator: C. LaVor Lym

Objectives of the Program: During 1975-76 the aim of the Metropolitan Alternative High School (MAHS) was to provide an alternative educational opportunity for youth in the Dallas Independent School District (DISD) who were former drop outs or who, for one reason or another, did not function well in a traditional high school setting. Four centers comprised the MAHS: Metropolitan East, Metropolitan West, Metropolitan South, and Metropolitan Crozier.

In general, the philosophy of the MAHS was to remove those elements of the traditional high school environment which were likely causes of a student's failure to perform, such as emphasis on extracurricular activities, pressure of competition, and the pressure of time limits on assignments. In the classes at the MAHS no homework was given, students worked individually on assignments, there were no time limits for assignments (only encouragement from the teacher to complete the work), there were no extracurricular activities, and competition among students was minimized through a program of independent study.

The aims of the MAHS were as follows:

1. To improve the self-confidence of the student, particularly the ability to perform adequately on academic tasks typically required of a high school student.
2. To develop in the student a sense of pride in workmanship.
3. To improve the study habits of the student.
4. To improve the academic and vocational skills of the student.
5. To enable the student to assume the initiative in engaging learning activities.
6. To enable the student to work at a self-determined pace.
7. To allow the student to encounter success in an educational environment.

Purpose of the Evaluation: The evaluation of the MAHS was undertaken to provide information regarding the function of the school in the following areas: (a) students' rate of progress in earning credits toward graduation,

(b) attendance patterns of students, (c) students' sentiments regarding attendance at the school, (d) instructional procedures used to implement the philosophy ascribed to the school, (e) personal characteristics of the school's faculty, (f) perceptions of the faculty relating to the school's effectiveness, and (g) the perceptions of principals and counselors in secondary schools in the District relating to the school's effectiveness. In addition, baseline data were collected related to the specific criteria stated in the goals for the MAHS (i.e., study habits and attitudes, attitude toward school, and academic self-concept).

Sample. Independent samples of students were selected proportionally across MAHS centers according to a matrix sampling scheme wherein a different instrument was administered to each sample. Six instruments, as follow, were used to collect data: Brown-Holtzman Study Habits; Brown-Holtzman Study Attitudes; the MAHS Student Questionnaire (designed by the evaluators to assess students' sentiments toward the school); and the School, Teacher, and Learner Scales. The latter three instruments were measures of students' attitudes toward school, students' relationships with their teachers, and students' sentiments regarding their capability to perform adequately on the learning tasks typically required in a school setting. The numbers of students for whom usable data were obtained are given below.

	Sample Size		
Instrument	Target Sample	Actual Sample	Percent
Study Habits	60	37	62%
Study Attitudes	60	39	65%
Student Questionnaire	60	35	58%
School Scale	60	45	75%
Teacher Scale	60	42	70%
Learner Scale	60	40	67%

Demographic data, attendance data, and data reflecting type of enrollment (i.e., assignment through Student Affairs or referral by the principal of the sending school) were collected for all MAHS students (n = 2382). In addition, the number of credits earned during the year was obtained for all students other than those who had transferred (i.e., enrolled in another DISD school) or dropped (terminated before graduation or enrolled in a school outside the District), or who were enrolled for fewer than 60 days. A total of 1,389 students comprised this sample.

Surveys were also made of the MAHS faculty, principals of secondary schools other than Metropolitan, and a randomly selected sample of counselors in secondary schools other than Metropolitan. Thirty-six of the 41 teachers in the Metropolitan centers, or 88%, responded to the MAHS Faculty Questionnaire. Among secondary principals, 40 of 42 (95%) completed the Principal

Questionnaire. One counselor per school was asked to respond to the Counselor Questionnaire, and 34 of 42 (81%) provided usable data.

Evaluation Design: Data were collected for the primary purpose of describing the status of the MAHS, rather than assessing its function as compared to a "traditional" high school. In fact, the very unique nature of the student population at Metropolitan precluded any type of comparative evaluation. The overall intention was to collect and report data which would adequately serve to describe the MAHS and also provide a baseline for any longitudinal assessment of the school. Consequently, sample surveys were made of the MAHS student population and school faculty to obtain data corresponding to the objectives of the school. Principals and counselors of other secondary schools were also surveyed to determine their perceptions of the MAHS. Their opinions were important because of the role they played in the referral of students to Metropolitan.

Of major interest was the examination of data reflecting the progress of MAHS students in earning credits toward graduation. Number of credits adjusted for period of enrollment was examined by means of qualitative data analysis in relation to level of attendance, type of enrollment, and grade placement. Correlations among the following variables were also examined: period of enrollment (minimum of 60 days, or one quarter), attendance per 180 days, credits per 180 days, and type of enrollment. Pair-wise correlations, either product-moment or point-biserial coefficients, between the aforementioned variables and the following variables were also computed and tested for statistical significance: study habits, study attitudes, teacher-student relationships, attitude toward school, and academic self-concept.

The questions addressed in the investigation were:

1. What were the personal characteristics of students who attended the MAHS?
2. What were the personal characteristics of the MAHS faculty?
3. What were the sentiments of the MAHS faculty regarding the effectiveness of the MAHS?
4. To what extent was instruction individualized in the MAHS?
5. What were students' sentiments regarding the Metropolitan Alternative School concept?
6. What was the relationship between duration of enrollment in the MAHS and measures of (a) study habits and attitudes, (b) attitude toward school, and (c) self-confidence as related to academic growth?

7. What was the rate of progress in earning course credits for students in the MAHS?

8. What were the sentiments of other secondary principals and counselors in the DISD regarding the effectiveness of the MAHS?

Evaluation Results:

1. The largest percentage of students at the MAHS were assigned through Student Affairs. The categories of enrollment for each of the four centers are shown in Table 1.

Table 1

Categories of Admission to Metropolitan

		Percent of	Reasons for Admission					
Center	Total[a]	Total Enrollment	Re-enrolling Drop		Referrals		Student Affairs	
Crozier	588	30%	249	42%	202	34%	137	23%
East	398	21%	54	14%	159	40%	185	46%
West	531	27%	127	24%	176	33%	228	43%
South	422	22%	57	14%	154	36%	211	50%
Total	1939		487	25%	691	36%	761	39%

Note: Figures are from the 1975-1976 Enrollment Report for the Metropolitan Alternative High School.

[a] These figures include all students who enrolled during the school year. Drops, transfers, and graduates are included.

Although the MAHS was originally intended for grades nine through twelve, some sixth, seventh, and eighth graders were assigned to the school through Student Affairs. These students comprised slightly less than 3% of the total enrollment, and all were placed in the Metropolitan West Center. Of the remainder of the enrollment, 32% were ninth graders, 31% were tenth graders, 23% were eleventh graders, and 14% were twelfth graders.

The distribution of Metropolitan students by race is presented in Table 2.

Table 2

Distribution of Metropolitan Students by Race

Center	Enrollment[a]	% Anglo	% Negro	% Mexican-American	% Other
Crozier	408	39.7	45.3	14.0	1.0
East	280	36.1	57.1	6.4	0.0
West	375	30.1	61.9	6.9	1.1
South	263	27.0	68.1	4.6	0.4
Total	1326	33.7	57.0	8.5	0.8

[a] Data are from the MAHS enrollment report for January 21, 1976. Enrollment figures are restricted to students who were enrolled at that time; drops, transfers, and graduates are excluded.

Twenty-five percent of the students who dropped from Metropolitan moved outside the District. Other reasons, each of which accounted for at least 10% of the number who dropped, listed in order of decreasing frequency were as follows: granting of a GED, past the age of compulsory attendance, and continued absenteeism.

2. The greatest percentage of MAHS teachers responding to the faculty survey were between 20 and 39 years of age. A total of 64% of the teachers were in this age span. The majority (78%) of the teachers were female. Racially, 67% of the teachers who responded were Anglo, 31% were Negro, and 3% were Mexican-American. The teachers were approximately evenly distributed across total number of years of teaching: 36% had taught one to five years, 33% had taught 6 to 10 years, and 31% had taught more than 10 years. Just about half of the teachers reported teaching in Dallas for 1 to 5 years; the other half was split with 28% who had taught in Dallas 6 to 10 years and 19% who had taught in Dallas more than 10 years. The distribution remained approximately the same for years teaching in schools other than Metropolitan. About half had taught 1 to 5 years in other schools, 22% had taught 6 to 10 years, and 11% had taught more than 10 years. Nineteen percent, however, indicated that they had no experience teaching other than that at Metropolitan.

   Ninety-two percent of the teachers had taught at Metropolitan for 1 to 5 years, while the remaining 8% had taught there more than six years.

   Also, the teachers who responded were divided evenly regarding the highest degree held. Fifty-three percent had obtained a Bachelor's Degree and 47% had obtained a Master's Degree.

3. In general, teachers expressed positive sentiments regarding Metropolitan. They felt particularly strongly about the following issues:

   a. The freedom of individual scheduling at Metropolitan was of great benefit to students.

   b. Metropolitan was effective in improving students' self-confidence.

   c. Metropolitan provided an atmosphere low in interstudent competition.

   On the other hand, teachers did not feel that Metropolitan was effective in training students to work together cooperatively. Also, they felt that the size of Metropolitan was too small.

   In response to a general question regarding outstanding problems at Metropolitan, several teachers expressed the opinion that third-party referrals should be reduced or omitted. Comments were that with increased enrollments it was becoming impossible to serve effectively those students who desired to attend Metropolitan as well as those who were assigned through Student Affairs. Other problems brought out by teachers were in the following areas: drug abuse and drug trafficking by students, racial and sexual imbalance of the faculty, and need for expansion of the curriculum.

4. Instructional activities at all four MAHS centers were found to be individualized to the extent possible with materials available. The instructional activities were observed to be entirely student centered, and 80% to 100% of the students were participating. The teachers acted as learning facilitators, and served as a resource to their students to a great extent. They were also available for questions at any time during the day.

   It was observed that students were all given individual assignments tailored to their particular needs and abilities. An individual course outline was prepared for each student by the teacher. Books and materials were generally in adequate supply, although in some cases students were unable to work in a particular subject area at the time chosen because no textbook was available. In general, textbooks and materials were available for range of difficulty levels, although some teachers mentioned that additional low level materials were needed.

5. Summaries of responses to the Student Questionnaire are given in Tables 3 and 4. The former contains a summary of responses to demographic questions, and the latter contains data reflecting students' perceptions of Metropolitan.

   On an item requesting suggestions or comments about Metropolitan, most students were very positive. In general, suggestions involved improving Metro facilities, improving relationships between students and teachers, and increasing the number of school activities where students could become acquainted and develop a sense of identity with the student body.

Table 3

Summary of Responses to Demographic Questions
on the Student Questionnaire

Percentage Responding Yes	Statement
	1. Reason for enrollment:
37	a. Enrolled as a result of a third-party hearing
37	b. Enrolled through a principal's referral at own request
17	c. Enrolled through a principal's referral suggested by a counselor or another person at the home school
9	d. No response
	2. Length of time enrolled in Metro:
68	a. Less than one year
14	b. One to two years
17	c. More than two years
	3. Attendance at other Metro centers:
89	a. Never attended any other Metro center
11	b. Had attended another Metro center
	4. Employment:
40	a. Employed
60	b. Not employed
	5. Where students lived:
86	a. Living with parents or guardian
12	b. Living with friends, relatives, or others
3	c. No response
	6. Marital status:
91	a. Single
3	b. Married
6	c. Other
	7. Distance traveled to Metro center:
51	a. More than five miles
14	b. Three to five miles
20	c. One to two miles
14	d. Less than one mile

Table 4

Summary of Responses to Program-Specific Questions on the Student Questionnaire

Percentage of Responses			Question
Yes	No	Not Sure or Don't Know	
57	20	23	Do you prefer attending Metro rather than your home school or other school?
69	17	14	Would you say that you get more individual attention at Metro than at your home school?
69	11	20	Do you think Metro has improved your study habits or attitudes?
66	17	17	Has your interest in school increased now that you are attending Metro?
94	6	0	Are you able to work at your own speed in the Metro classes?
63	26	11	Should there be more activities where students work together at Metro?
71	20	6	Is there less pressure to get good grades at Metro than in your home school?[a]
57	20	23	Do you feel that teachers at Metro show more personal interest in their students and their work than teachers at your home school?
			Are the textbooks and materials used by your teachers...
80	17	0	interesting?[a]
86	9	0	easy to understand?[b]
54	37	0	always available?[c]
49	26	26	Do you think Metro prevents students from dropping out?
40	17	40	Does Metro allow its students to "get it together"?[a]

(continued)

Table 4 (continued)

Summary of Responses to Program-
Specific Questions on the Student Questionnaire

Percentage of Responses			Question
Yes	No	Not Sure or Don't Know	
74	11	14	Do you think there are fewer conflicts between students at Metro than at your home school or other schools?
54	23	23	Do you think that there is more recognition of student's work at Metro than at your home school or other schools?
69	14	17	Would you say that students and teachers get along better at Metro than at your home school or other schools?
77	20	3	Do you prefer working at your own pace rather than having the teacher set the pace?
86	6	9	Would you say that your Metro teachers grade fairly?
20	37	43	Do you think going to Metro helps students with special problems, for example discipline or drug-related problems?
53	15	32	Do you think that there are fewer discipline problems at Metro than at your home school or at other schools?
69	14	17	Do you think that you have greater respect for school property since you've been going to Metro?
66	11	23	Do you think that the counseling at Metro is more helpful than that offered at your home school or other schools?
91	6	3	Do you like the flexible schedule used at Metro where you can decide which class to attend and how long you work in that area?
49	29	23	Do you feel that it's easier to get to know other students at Metro than at your home school?

[a] no response = 3%

[b] no response = 6%

[c] no response = 9%

6. Period of enrollment in the MAHS was found to be inversely related to academic self-concept. Thus, as the period of enrollment increased, the academic self-concept of students tended to be less positive. A negative point-biserial correlation between period of enrollment and type of enrollment indicated that referral students remained enrolled for a longer period of time than students who were assigned through Student Affairs.

   Not surprisingly, attendance was found to be positively related to the number of credits earned. The correlation between attendance and type of enrollment, which was positive, was also marginally significant, indicating that referral students had better attendance than students assigned through Student Affairs. Among the survey measures, attendance was positively related to attitude toward school, a finding which could logically be hypothesized.

   Credits earned was significantly and positively related to study habits and academic self-concept. This result suggests that those students who accumulated more credits toward graduation were those who had better study habits and who perceived themselves as more capable of succeeding in the academic environment (understand, however, that the effect of attendance at Metropolitan on study habits or academic self-concept couldn't be determined from the correlational analysis).

   It was also found that students assigned through Student Affairs had less positive study attitudes, although the two groups did not differ on measures of study habits, teacher-student relationships, attitude toward school, or academic self-concept.

7. Data which reflected the number of credits earned were available for 1389 students who were enrolled in the MAHS and who met the following criteria:

   a. The student was enrolled at Metropolitan for at least 60 days of the 180 days in the school year.

   b. The grade placement of the student was at the high school level (ninth through twelfth grades).

   c. The student did not drop or transfer from Metropolitan during the year.

A summary of the data for the 1389 students is given below.

a. There were approximately three times as many referral or re-enrolling students in the sample as students who had been assigned through Student Affairs (1028 versus 341, respectively). This finding is in contrast to data for the Metropolitan population, in which case approximately 40% of the students had been assigned through Student Affairs.

b. The majority (approximately 64%) of students in the sample were ninth and tenth graders, with a nearly equal distribution between the two grade levels. There were approximately 30% fewer students in the eleventh grade than in either the ninth or tenth grades, and over 50% fewer in the twelfth grade. These statistics would suggest an increasing propensity for students to drop out as the compulsory age for attendance is passed. A significant relationship between type of enrollment and grade placement ($\chi^2 = 53.6$, df = 3, $p < .01$) further demonstrated that referral and re-enrolling students were enrolled at the eleventh and twelfth grades in proportionally greater numbers than students who were assigned through Student Affairs.

c. Nearly 70% of the sample of Metropolitan students attended fewer than half the number of days during which they were enrolled. Only about 2% (n=26) showed a high level of attendance; that is, attended 90% or more of the days during which they were enrolled. Approximately 15% attended 70% or more of the time, which means they were absent fewer than 1 1/2 days for each week of enrollment.

d. Approximately 8% of the student sample earned a number of credits which, if the same number of credits were earned each year, would enable the student to graduate after four years. An additional 6.3% earned credits at a rate which would enable them to graduate after five years. On the other hand, about 40% of the sample earned no credits. The remainder of the students, approximately 45%, earned credits, but not a number sufficient to ensure their progress toward graduation in a reasonable period of time.

The examination of relationships between adjusted credits and the other variables produced results which gave additional meaning to the data. Adjusted credits was found to be uncorrelated with type of enrollment, indicating that the number of credits earned did not differ between referral students and students assigned through Student Affairs. Significant relationships were found, however, between adjusted credits and (a) grade placement and (b) adjusted attendance. For the former, eleventh and twelfth graders, and particularly twelfth graders, earned a greater number of credits. Credits and attendance varied directly, with the large majority (65%) of the students who earned 13 or more credits showing an attendance of 113 or more days.

8. A summary of responses to the Principal Questionnaire and the Counselor Questionnaire can be found in Table 5.

Table 5

Summary of Responses to the Principal and Counselor Questionnaire

Principal				Counselor				
Yes	No	Don't Know	No Response	Yes	No	Don't Know	No Response	Question
20	33	48	0	41	18	41	0	Do you think that the quality of instruction received at Metro is equivalent to that received at the home school?
60	13	28	0	79	6	15	0	Do you feel that it is possible at Metro to effectively serve two populations, those students who are referred and those students who chose to go to Metro?
90	0	10	0	91	3	6	0	Do you feel that Metro is a worthwhile undertaking of DISD?
23	25	53	0	24	9	68	0	Do you feel that a larger number of teachers should be assigned to the Metro schools?
15	10	75	0	24	21	53	3	Would you say that there is enough space at Metro to accommodate its present enrollment?
73	25	0	3	59	38	0	3	Have you ever visited one of the Metropolitan Alternative High Schools?
50	0	48	3	65	3	26	6	Is Metro effective in... reducing peer pressure?
75	3	23	0	85	3	9	3	providing an atmosphere where the students receive individual attention?
63	3	35	0	88	0	9	3	providing an environment where the students can work and study at their own rate of speed?
38	10	53	0	32	12	50	6	improving students' study habits and attitudes toward school?

(continued)

Table 5 (continued)

Summary of Responses to the Principal and Counselor Questionnaire

Principal				Counselor				
Yes	No	Don't Know	No Response	Yes	No	Don't Know	No Response	Question
35	17	48	0	18	32	41	9	Do you feel that Metro can provide better counseling and guidance?
10	38	53	0	15	35	50	0	Do you feel that Metro improves the attendance habits of its students?
15	42	42	0	0	38	62	0	Do you feel that Metro acts as a deterrent to drug-related problems?
30	35	35	0	35	29	29	6	Are the requirements or standards for earning academic credits the same at Metro as they are at traditional high schools?
38	40	23	0	15	79	6	0	Do you feel that the curriculum offering at Metro should be limited to those academic subjects required for graduation?
63	25	13	0	56	32	12	0	Do you feel that the geographic locations of the Metro schools provide maximum accessability for any DISD student who may enroll at Metro?

When asked to rank the reasons for referral of a student to Metro in the order of importance, principals listed discipline problems, inability to adjust to high school, and drug-related problems. Sixty-three percent of the principals felt that teachers should be assigned to Metro based on careful screening. Seventeen percent felt assignments should be on a voluntary basis, and 20% specified some other basis. Suggestions for improvement were that Metro should accommodate students in the middle school group with separate facilities, that admittance procedures and attendance be improved, that follow-up be improved for drop-outs, and that students be assigned for a school year rather than a quarter.

The most important reasons given by counselors for referral to Metropolitan differed markedly from the reasons given by principals. Reasons given by counselors in decreasing order of importance were as follows: inability to adjust to the high school situation, inability to cope academically, and "dropping in". Fifty-six percent of the counselors felt that teacher assignment to Metro should be on the basis of careful screening. Twenty-six percent felt that teachers should be assigned on a voluntary basis, and 18% felt some other basis should be used. Counselors' suggestions for improvement were that better communication be established between the home school and the Metro schools, maintenance of a separate alternative school for younger students and third-party students, and expansion of the Metropolitan curriculum to include more electives.

Additional Information:

76-872 Evaluation of the Metropaliton Alternative High School, 1975-76, 1976, C. LaVor Lym.

Abstract

Evaluation of the Title IV-C High School Alternative Science Program, 1976-77

Evaluator: Allen W. Scott

Objectives of the Program: The High School Alternative Science Program was established to design, develop and field test three one-quarter courses; one in geology, one in astronomy, and one in environmental science. The program was to include (a) a 5-week summer writing session in which a select group of teacher/curriculum writers designed and developed the instructional units, (b) a Personnel Development Program to train teachers to cognitively map and counsel students, (c) cognitive mapping of each teacher and student involved in the field test site, and (d) field testing of all instructional units.

Purpose of the Evaluation: The evaluation of the High School Alternative Science Program was designed to determine if the program was effective in significantly increasing student mastery and skills, and to determine if there was significant improvement in the student attitudes toward science. The evaluation was also to determine if the activities called for in the management plan were completed as specified.

Sample: The Alternative Science Program was implemented by a total of 12 teachers in Adamson, Business Management Magnet, Spruce and Sunset high schools. The students enrolled were those who would normally be enrolled in Physical Science.

Evaluation Design: The evaluation design for the program may be represented as:

$$X_1 \ O_1 \ O_2 \ X_2 \ O_3 \ O_4 \ X_3 \ O_5$$

Treatments X_1, X_2 and X_3 represent implementation of geology, astronomy and environmental science, respectively. The observations O_1, O_3 and O_5 represent criterion-referenced posttests for the three programs. Observations O_2 and O_4 represent criterion-referenced pretests on astronomy and environmental science. The pretest for geology was not administered. Although attitude measures were to be administered to both program participants and comparison subjects the tests received by Research and Evaluation were not marked experimental and control. With no way to distinguish between experimental and control subjects the data were deleted from the study.

Process information was collected by periodic (usually monthly) monitoring of the management plan and classroom visitations.

The major evaluation questions were:

1. What were the characteristics of the population served by the program?
2. Was the project implemented as specified in the management plan?
3. Were four instructional units developed for each quarter program with a common set of objectives for each and at least three different styles of learning strategies for each objective?
4. Was an instrument selected or developed that successfully diagnoses learning styles of high school students?
5. Did teachers master cognitive style mapping to the extent that they could consistently select learning strategies appropriate to the learning style of individual students?
6. Was there a significant improvement in the attitude toward science of students participating in the program?
7. Was there a significant increase in student mastery of concepts and skills of program participants?
8. What were the start-up costs and projected continuation costs of the program?

Evaluation Results:

1. Students and teachers participating in the pilot project were from Adamson, Business Management Magnet, Spruce, and Sunset High Schools. Approximately 300 students, mostly ninth graders, were involved. Twelve teachers were involved in teaching the program.
2. The activities called for in the management plan were implemented and completed as specified.
3. According to consultants from Mountainview College each of the program's objectives could be obtained by any of three different strategies based on a unique set of learning style characteristics. Four instructional units were developed for each quarter.
4. The cognitive style mapping scale adapted by the Mountainview College staff was selected to diagnose student learning style.
5. To some extent teachers were able to exhibit the ability to select appropriate learning strategies for students with different learning styles. Time constraints prohibited the extensive development and use of these skills.

6. The lack of comparison group data precluded investigation of the objective. Although requested to test Physical Science students as well as program participants only one teacher did so. There was no way to distinguish between participants and controls for this teacher. As a result no analysis was conducted.

7. On the geology unit during the first quarter a change in project management led to the failure to administer a pretest. On the posttest over 50% of the students correctly answered no more than 27 of the 104 items.

   The second quarter results on the astronomy unit showed an increase from pretest to posttest of 28%. Even with the increase, however, the mean score on the posttest was 37.2%.

   The third quarter program on Environmental Science revealed that the mean pretest score was 11.77 out of a possible 35 items. The mean posttest score for the same number of items 18.88. Although the scores showed a definite trend toward improvement during the second and third quarters the mean posttest scores (25% for geology, 37% for astronomy, and 54% for environment) were lower than might be desired for criterion-referenced tests.

8. The start-up cost for the program was $32,689.55. Although a continuation proposal requesting $35,000 for the 1977-78 school was rejected by the Texas Education Agency, a proposal in that amount has been submitted for funds from a source other than Title IV-C.

Additional Information:

T477-108-9-4 Evaluation of the Title IV-C High School Alternative Science Program, 1976-77, 1977, Allen W. Scott.

Abstract

Evaluation of the Secondary Educational Exploration Component (Project SEEC), 1976-77

Evaluators: Larry R. Ridener
William T. Denton

Objectives of the Program: The Secondary Educational Exploration Component (SEEC) was a program that allows talented and/or gifted students who meet the qualifying criteria the opportunity for participation in an apprentice project involving a business, a professional person, or an institution. The accepted student spends one or more quarters of the academic year involved in "on-the-job training." Students are placed with responsible and successful citizens of the community to study and observe on a daily basis their particular area of interest and/or talent.

SEEC has been combined with the previously existing Executive Assistant program to provide a much more extensive opportunity for the gifted students. However, SEEC expanded the concept to include the physical and creative arts and other professional interests. SEEC put the responsibility on the student by requiring that the person apply for the program and explain what is expected to be accomplished and why they feel they are qualified to be accepted. It also allowed counselors and teachers as well as administrators to have a part in the selection.

The student is required to write a proposal applying for admission to the program stating his/her goals, objectives, and interests. This application is presented to a local school committee composed of the principal, a counselor, the student's teacher(s) and parents. Upon approval by the local committee the application is forwarded to the Development Council for approval. The student is then interviewed by the Program Facilitators who in turn arrange three interviews with sponsors from which the student chooses are for his/her placement.

The students experience was constantly reviewed and monitored by the Program Facilitators. Seminars were held each Friday with mandatory attendance required. At these meetings the student turned in a written weekly summary of his/her activiites and what has been learned. During the quarter the student was free to discuss with the Facilitators any problems related to the placement or school. After the seminars the student checked in with the counselor and/or teacher(s) at his/her home school to keep up with current activities and assignments. When the student completed the program a final summary was written. This was submitted to the Program Facilitators where a decision was made as to the grade and credit due the student.

Purpose of the Evaluation: The evaluation of SEEC was designed to determine if the program operation was functioning properly and to assess the sentiments of those involved with the program. Suggestions and recommendations for program changes were tabulated from samples of participants.

Sample: Students who participated in SEEC during each of the three quarters were sampled. Those students who participated more than once in the program were eliminated. Approximately twenty percent were sampled from the Fall and Winter quarters, ten and eleven students, respectively, with a ten percent sample from the Spring quarter (sixteen students). Educators were sampled from five of the nineteen schools (roughly one-fourth). The principal, one counselor, and one teacher were chosen from each school for a total of fifteen educators. Also fifteen sponsors, approximately ten percent of all sponsors, were selected for the third sample.

Evaluation Design: The design used for evaluation of SEEC consisted of personal interviews with participating students during the weeks of April 25-29 and May 2-6, 1977. Personal interviews with educators were held during the week of May 16-20, 1977. Sponsors were interviewed by telephone during the week of June 20-24. Process evaluation data was collected from an in-depth interview with Program Facilitators on April 19, 1977 and from the tabulation of student files in the Facilitators' office during the week of April 18-22, 1977. Grades and attendance data were extracted from the District Data Base during the week of June 27 - July 1, 1977. These data were statistically analyzed by means of t-tests.

The major evaluation questions were:

1. Do all students who were admitted to the SEEC program meet the qualifications for participation?
2. What defects in program design were identified by participating students, counselors, principals, teachers, and community members?
3. What were the sentiments of participating students, counselor, principals, teachers, and community members regarding the effectiveness of the program?
4. What effect does the program have on student school performance, e.g. grades, attendance?

Evaluation Results:

1. According to the operating procedures of SEEC during the 1976-77 school year all of the students who participated in the program were qualified to do so. However, after looking back on the program at the end of the year, evaluating interviews from students, educators, and sponsors, and examining grades from the District's Data Base it would appear that some students were enrolled in the program who did not qualify. Students

expressed that the program was not for everyone and that a few failed to to take it seriously. Sponsors echoed the sentiments of students and felt that some needed closer supervision than they deemed should be necessary. Educators added the point that some students, in their opinion, had taken advantage of the program to avoid taking certain courses and to raise their grade averages. Some educators wished to de-emphasize the talented and gifted component of the program because they felt it was misleading. It was generally felt that next year more stringent criteria for qualifying be imposed on student applicants.

2. From the student's point of view many problems revolved around the weekly seminars they were required to attend. Some felt that the seminars were boring, too large, and met too often. Students suggested that these meetings be divided into smaller groups by similar interest to cover relevant topics and that they should meet every other week. They also wished to have more interaction with their fellow students. Another major problem expressed by the students was boring, menial work or the lack of something to do. They wished to have more contact with their sponsors as well as better communication with their home schools while they were gone. Other student recommendations included increasing the number of Facilitators, limiting enrollment, changing the waiting period prior to placement, and holding an end-of-the year meeting for all SEEC students together. Students perceptions of program defects are listed in Tables 1a - 1c.

TABLE 1a

Student Perceptions of Program Defects

Question

What was your biggest problem while involved in SEEC? N=38

	Responses	f	%
A.	Transportation	7	18%
B.	Relating to fellow workers	1	2
C.	Condescending attitude	1	2
D.	None	6	15
E.	Not being paid	0	0
F.	During work - not enough to do	4	10
G.	Seminars	0	0
H.	Adjusting to work atmosphere	5	13
I.	Expenses	0	0
J.	Not enough time	3	7
K.	Keeping up with studies	2	5
L.	Extra-curricular activities	2	5
M.	Lack of confidence	2	5
N.	Problem with teacher	3	7
O.	Health problem	1	2
P.	Crowded working conditions	1	2

TABLE 1b

Student Perceptions of Program Defects

Question

What improvements or recommendations would you make in the program
N=38

	Responses	f	%
A.	Seminars - boring, too large	9	13
B.	More information to teachers	4	5
C.	Student-sponsor group meeting	3	4
D.	Seminars - meet too often	3	4
E.	Seminars - oriented toward business	3	4
F.	Sponsors give more to do	6	8
G.	End-of-year meeting	2	2
H.	Make program longer than quarter	3	4
I.	No improvements	4	5
J.	More interactions with students	5	7
K.	Increase number of Facilitators	3	4
L.	More contact with sponsors	5	7
M.	Limit program enrollment	2	2
N.	Pretraining for law students	1	1
O.	Orientations with previous students	1	1
P.	Fund for expenses of lower SES students	1	1
Q.	Students in program all senior year	1	1
R.	Change waiting period in placement	2	2
S.	More information to students not in program	2	2
T.	Better communication with schools	3	4
U.	Hold parent's meeting earlier	3	4
V.	More sponsors than limit of three	1	1
W.	More black sponsors	1	1

TABLE 1c

Student Perceptions of Program Defects

Question

What advice would you give to a new student entering the program? N=38

Responses	f	%
A. Get involved and take advantage of opportunity	27	25
B. Be open-minded	30	28
C. Meet new people	5	4
D. Keep up with studies	5	4
E. Stay informed of school activities	3	2
F. Be serious about program	19	17
G. Make sure of placement	4	3
H. Be prepared for readjustment	3	2
I. Program not for everyone	7	6
J. Dress appropriately	1	1
K. Arrange transportation	2	2
L. Be on time and avoid absences	1	1

The major defect in the program from the educators' side was that of the grading and credit system. Teachers, especially, felt that students should not receive credit for a course they had not taken nor be given an automatic grade. Some suggested issuing the same grade, or grade average, the student had made prior to enrolling SEEC. Almost all educators felt it should be changed somehow, even though many did not make specific recommendations. Other suggestions made by educators included changing the program to a half-day basis similar to other career education programs, more contact with students involved in SEEC, better screening and identification of applicants, more teacher orientation about the program's operation, and better briefing and debriefing sessions for students. Tables 2a and 2b present the educators perceptions.

TABLE 2a

Educators' Perceptions of Program Defects

Question

What was your biggest problem with the program?

Response	f	%
A. Grading and credit system	3	20
B. Readjustment for students	2	13
C. Non-acceptance by teachers	1	6
D. Missed coursework	7	47
E. Transportation for students	1	6
F. None	1	6

TABLE 2b

Educators' Perceptions of Program Defects

Question

What improvements or recommendations would you make in the program?

	Response	f	%
A.	Require program for seniors	1	2
B.	Change staff attitude toward program - more teacher orientation	3	7
C.	Write final evaluation along Jr. - Sr. English guidelines	1	2
D.	Change the grading credit system	12	29
E.	Better student contact with schools	4	9
F.	Better screening and identification	3	7
G.	Have program in summer	2	4
H.	Make program similar to career education programs on ½ day basis	5	12
I.	Limit program to third quarter	1	2
J.	Avoid last quarter of senior year	1	2
K.	Better briefing and debriefing sessions	3	7
L.	Use for students for recruiting	1	2
M.	Direct program to lower SES students	2	4
N.	Limit to one quarter only	2	4

The major program defect perceived by sponsors was the lack of specific guidelines and expectations as to the sponsor's role and duties. They also felt that there should be better screening and identification of students, limited enrollment, more flexible schedules for students, and an orientation session for first-time sponsors with an end-of-year follow-up. Overall, sponsors were enthusiastic about the program, thoroughly enjoyed the experience, and were willing to participate again.

TABLE 3a

Sponsors' Perception of Program Defects

Question

What was your biggest problem with the program?

	Responses	f	%
A.	No problems	8	53
B.	Some students need closer supervision	3	20
C.	Lack of stated program goals and expectations, guidelines for sponsors	3	20
D.	Orientation process	1	6

TABLE 3b

Sponsors' Perceptions of Program Defects

Question

What recommendations or improvements would you suggest for the program?

	Responses	f	%
A.	Better screening of students	4	15
B.	Specific guidelines for sponsors	3	11
C.	Time for instructional discussion and feedback	1	3
D.	Limited enrollment	2	7
E.	Orientation for first-time sponsors	2	7
F.	Follow-up with sponsors	1	3
G.	Specific projects for students	1	3
H.	Keeping information confidential	1	3
I.	Former students briefing new students	1	3
J.	Program longer than quarter	1	3
K.	Students should be seniors	1	3
L.	Time limited to quarter only	1	3
M.	Flexible schedules by students	2	7
N.	Sponsor participation in student selection	1	3
O.	Sponsor committee for program	1	3
P.	None	3	11

3. All of those who were involved with SEEC were very enthusiastic about the program. The students best liked the experience it gave them to see what their chosen fields were like and to be independent from the regular school structure. They also enjoyed meeting new people, both sponsors and other students from the District, and learning about the community, its institutions, and functions. Most students felt that the program had given them an advantage over other students not in SEEC by allowing them to see the actual workings of their career areas.

TABLE 4a

Students' Sentiments About Program Effectiveness

Question

How has this experience affected your career plans/goals?

Responses	f	%
A. Reinforced ideas about career	26	68
B. No change	0	0
C. Created doubts	3	8
D. Changed plans completely	9	24

TABLE 4b

Students' Sentiments About Program Effectiveness

Question

What did you like best about the program?

Responses	f	%
A. Real world experience	23	60
B. Seminars	2	5
C. Facilitators	2	5
D. Choice of different sponsors	3	7
E. Responsibility	2	5
F. Meeting new people	4	10
G. Independence	1	2
H. Learning about community	1	2

Educators also were excited about the program and considered the opportunity for students to learn about a career before entering it to be the best aspect of the program. The greatest problem the educators found was with the grading and credit system. Teachers did not like for students to receive credit for courses they had not taken and then be given an automatic grade. This also presented a further problem to teachers who had students returning from SEEC that had missed the coursework from the previous quarter. Other educators felt that the readjustment period for students was particularly difficult. Related problems centered about screening and identification of student applicants to ensure serious, high caliber students, and trying to cut down on the number of students enrolling in SEEC to avoid courses and raise their grade average. Educators' sentiments are summarized in Table 5.

TABLE 5

Educators' Sentiments About Program Effectiveness

Question

What were your likes/dislikes about the program?

	Likes	f	%
A.	Opportunity for students	15	65
B.	Facilitators	2	9
C.	Increased motivation of students	6	26
	Dislikes	**f**	**%**
A.	Grading system	10	34
B.	Missed coursework	9	31
C.	Readjustment period	5	17
D.	Avoidance of courses	2	7
E.	Students not properly identified	1	3
F.	Not enough contact with students while in program	1	3
G.	Not enough time for briefing and debriefing sessions	1	3

Sponsors considered the program to be very successful but felt that it could be improved by stipulating specific guidelines and program expectations for the sponsors. Several sponsors were unsure of their duties regarding the students and expressed a desire for a sponsor orientation session to provide them with more detailed information about the program and its operation. Sponsors seemed pleased with their students and enjoyed working with them as well as having contact with the District and learning about the programs in the high schools.

TABLE 6

Sponsors' Sentiments About Program Effectiveness

Question

What were your likes/dislikes about the program?

Likes	f	%
A. Reliable help	11	27
B. Maturity, responsibility of student	7	18
C. Ability to work with others	7	17
D. Pleasant personality	4	10
E. Program in general	8	20
F. Respected confidentiality	1	2
G. Facilitators	2	5

Dislikes	f	%
A. Unreliable help	2	10
B. Immaturity of student	0	0
C. Inability to work with others	1	5
D. Unpleasant personality	0	0
E. Inflexible schedules	2	10
F. Not enough structure	2	10
G. Program not in summer	2	10
H. Missed students on Fridays	1	5
I. Students not serious	2	10
J. None	8	40

TABLE 7

Students' Independent Study

	f	%
A. Attempted and maintained study throughout	3	8
B. Attempted but did not maintain	3	8
C. Attempted and maintained study in certain areas	18	47
D. Attempted but did not maintain in certain areas	2	5
E. Did not attempt	12	32

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4. From a selected sample of students enrolled in SEEC during the Winter quarter it was found that there was no significant effect on grades from the Fall to the Spring. Grades did improve slightly during the year. However, it was discovered that there was a significant difference between grades in the Winter quarter (during SEEC enrollment) and grades in the other two quarters. See Tables 8 and 9. The reason for this significant difference lies in the measurement of the grading system by the Program Facilitators. Upon examining the computer printouts it was shown that all of the Winter quarter students in SEEC had received straight A's except for one who received straight B's. Similar results were found for students in SEEC in the Fall and Spring quarters also. In most cases these grades, i.e., the Winter grades were high enough to produce the significant values found in the comparisons of quarters.

Several educators who were already aware of this problem at the time of the interviews offered suggestions to help remedy the situation. First, some recommended a complete separation of grades from regular academic work and grades in SEEC. This separation they felt should also be readily identifiable to anyone who might have occasion to view student transcripts. Second, they suggested giving SEEC students the same grade that was received in the previous quarter for the same subject, or giving the student his/her grade average for the subject. Third, educators requested that specific guidelines be drawn up for the grading system of SEEC and that these be published throughout the District. A further ramification of the grading problem was that the final senior class rankings were changed because several SEEC students had increased their grade averages so much. Educators recommended that this possibility either be eliminated or decreased because of unfairness to students not in SEEC.

Comparisons of attendance data (number of absences) for the three academic quarters produced significant differences by _t_-tests. However, these differences may be the results of artificats in reporting attendance for the program and in the general trend of attendance decline from the Fall to the Spring quarters. The data indicated that absences were fewer during program enrollment but the reliability of the data values it difficult to draw any conclusion.

TABLE 8

GRADE COMPARISONS FOR WINTER SEEC STUDENTS - ENGLISH SET

Quarter	N	Mean	T Value	If	Significance Level (two tailed)
Fall		2.88			
Winter	32	3.97	-7.57	31	.001*
Fall		2.88			
Spring	32	3.06	-1.44	31	.16
Winter		3.97			
Spring	32	3.06	7.44	31	.001*

*Significant beyond p = .001

TABLE 9

GRADE COMPARISONS FOR WINTER SEEC STUDENTS - NON-ENGLISH SET

Quarter	N	Mean	T Value	If	Significance Level (two-tailed)
Fall		2.97			
Winter	33	3.96	-6.93	32	.001*
Fall		2.97			
Spring	33	2.97	0.00	32	NS
Winter		3.97			
Spring	33	2.97	6.33	32	.001*

*Significant beyond p = .001

Additional Information:

T477-046-9-1 Evaluation of the Secondary Educational Exploration Component (Project SEEC), 1976-77, 1977, Larry R. Ridener, William T. Denton.

Abstract

Evaluation of the Title IV-C Program for Challenging the Gifted Child, 1976-77

Evaluator: Jacquelyn I. Burns
C. LaVor Lym

Objectives of the Program: Challenging the Gifted Child (CGC) was a program which involved the identification of gifted and talented urban children in grades 4-6. These children were allowed the opportunity to explore, study, research, and develop ideas and interests in a model laboratory-type resource room. The model laboratory-type resource room was equipped to allow students peer interaction and the opportunity to explore or create according to their interest and/or abilities. The students spent two hours a day in the resource room under the direction of one resource teacher. After identifying gifted urban children, 10 catalyst teachers would be trained to instruct gifted and talented students and would plan and implement the program in their home school.

Purpose of the Evaluation: The evaluation of the CGC program was designed to monitor program activities and to determine the effectiveness of this kind of instruction on those students selected for the program. The design had to be modified due to the lateness of the program. The results are contextual in nature and were used (a) to describe the aptitude, achievement, creativity, and attitude of participating students during 1976-77 and (b) to provide a standard of comparison for data which might be collected during 1977-78.

Sample: The proposed sample included 27 students from the John W. Carpenter Elementary School. However, Adelle Turner Intermediate School was selected as the site and 45 students were selected in grades 4, 5, and 6. At the beginning of the program, three students transferred from the school, leaving 42 students active within the program. Another student, who was enrolled in the school at the time the program began, but was not an initial participant, was placed in the program. These 43 students remained through the duration of the program.

Evaluation Design: Due to the program's late beginning, the evaluation design had to be modified. Originally, a controlled comparison group was to be formed from those Adelle Turner students who were not chosen as participants in the program. This could not be done since all students eligible for participation were chosen as participants. The data collected was contextual in nature in that it served (a) to describe the aptitude, achievement, creativity, and attitude of participating students during 1976-77 and (b) to provide a standard of comparison for data which might be collected during 1977-78.

The major evaluation questions were:

1. What were the characteristics of participating students?
2. What were the characteristics of the school and student population?
3. Were all activities related to the development and piloting of the model laboratory-type resource room carried out according to the proposed time schedule?
4. What was the environment of the model laboratory-type resource room and how did it operate?
5. What was the attitude of participating catalyst teachers toward the model laboratory-type resource room?
6. What was the attitude of the faculty within the school regarding the model laboratory-type resource room?
7. Did the attitude and achievement of participating students show significant change?

Evaluation Results:

1. There were a total of 43 participating fourth-, fifth-, and sixth-grade students in the CGC program. These students were chosen by a selection committee of DISD management. The criteria most important were reading scores (reading comprehension and vocabulary) from the Iowa Tests of Basic Skills (ITBS). These students had to score above grade level on the reading subtests. After this process was completed, teacher recommendation and parental approval were considered. Most of the students had high academic records prior to their being considered for selection. Table 1 contains characteristics of the participating students.

Table 1
Participants in the Program

Classification	Number	Percent of Total
Grade Level		
4	12	28%
5	12	28%
6	19	44%
Sex		
Male	23	53%
Female	20	47%
Race		
Black	22	51%
White	19	44%
Mexican-American	1	2%
Other	1	2%

Note. Total number of participants was 43.

2. The Adelle Turner Intermediate School was chosen as the site for the CGC program. This K-6 school is in the Southwest Subdistrict of DISD. Students were tested at Adelle Turner Intermediate School with the Iowa Tests of Basic Skills (ITBS). The performance profile data (Spring, 1977) for grades 2, 4, and 6, were based on ITBS large city norms and median percentiles were summarized for reading, language, and mathematics. Table 2 summarizes those median percentiles in reading, language, and mathematics for grades 2, 4, and 6.

Table 2
ITBS Median Percentile Scores in Reading, Language, and Mathematics by Grade Level

	ITBS Summary					
	Reading		Language		Mathematics	
Grade Level	n	Median %ile	n	Median %ile	n	Median %ile
2	80	68	79	46	79	46
4	71	60	70	54	71	44
6	92	36	92	48	92	32

Presented in Table 3 are summary data including socioeconomic status, average daily attendance, etc., which is indicative of the student population at Adelle Turner.

Table 3

Summary Data by Grade Level on Attendance, Deprivation, Socioeconomic Status, and Ethnicity

	Percentages by Grade Level		
	2	4	6
Attendance			
Average Daily Membership (ADM)	81	74	92
Average Daily Attendance (ADA)	97	96	98
Deprivation (Students getting free lunch)	2	2	2
Ethnicity			
White	36	42	33
Black	63	58	67
Socioeconomic Status (SES)[a]	64	70	70

[a] Based on a scale from 25-75 with 25 as the lowest SES level and 75 being the highest SES level.

3. The CGC program at Adelle Turner began on November 22, 1976. The late beginning can be attributed to the late selection of the resource teacher. With this modification, all activities as to the piloting of the resource room, the implementation of the resource room program, and the student participation remained unchanged. The induction and training of catalyst teachers, however, could not begin in January, 1977, due to this modification.

4. Three 2-hour sessions each day were conducted in the resource room. The 43 participating students were released daily from their regular Language Arts classes. Language Arts was then taught in the resource room by the resource teacher along with all the creative and independent activities. The teaching of Language Arts was a problem since three heterogeneous groups of fourth-, fifth-, and sixth-grade students had to be instructed on these respective grade levels. (Approximately six weeks before the end of school, another adult began work in the resource room as a teacher aide/resource room trainee. This

did help eliminate some of the problem with language arts and with having no sessions in the resource room on the days the resource teacher was absent.) Along with language arts and creative activities students were taught Bloom's taxonomy, study skills, methods of problem-solving and research methodology. By using Bloom's taxonomy of the cognitive domain, methods of critical thinking could be applied to all subject areas and all topics needing problem solving. Students then used what they learned to do independent projects on subjects of interest. During the program, students did many class presentations and were given the opportunity to teach their fellow classmates a mini-lesson.

The resource room itself was decorated with student work. There were various centers in the resource room designed to promote independent thinking. Each center had been explained by the resource teacher so students could work without teacher direction and at their own pace. These centers included activities in the metric system, library usage, social studies, mathematics, etc.

5. There were 10 teachers who were to be trained to conduct resource rooms in their respective schools. Due to the late start of the program, these teachers could not begin training in January, 1977. The proposed training instead began on June 6, 1977, and ended on July 8, 1977. This training gave each instructor six credit hours at Texas Woman's University. With this modification of the training procedure, no resource room will be established until the 1977-78 school year and no attitudinal data were received from these catalyst teachers.

6. Nine teachers were surveyed at the Adelle Turner Intermediate School. These nine teachers taught the 43 participating students in their regular fourth-, fifth-, and sixth-grade subject areas. All nine teachers (100%) returned the survey. Of the nine, seven (78%) responded that they felt the students benefited from the program, while two (22%) failed to give any response. When asked to rate the overall program, seven (78%) felt the program was "definitely worthwhile," while one (11%) felt the program "had some merit," and one (11%) failed to respond.

7. The 43 students were tested with the California Short Form Test of Mental Maturity (SF-CTMM), 1963 Revision to obtain aptitude data. Tables 4 and 5 summarize the results from this testing for the four factors of the test (I-Logical Reasoning, II-Numerical Reasoning, III-Verbal Concepts, IV-Memory) and for the composite scores (Language, Non-langugae, Total).

Table 4

California Test of Mental Maturity
Summary Statistics for Factors

Grade	Number of Students	Raw Score		
		Mean	Standard Deviation	Percentile of the Mean
Factor I: Logical Reasoning				
4	12	32.5	5.84	83
5	12	31.8	4.24	75
6	19	35.5	5.18	75
Factor II: Numerical Reasoning				
4	12	13.7	5.14	76
5	12	16.7	3.70	84
6	19	19.9	3.44	84
Factor III: Verbal Concepts				
4	12	19.0	2.63	86
5	12	20.8	2.05	89
6	19	21.8	2.97	84
Factor IV: Memory				
4	12	15.5	3.78	73
5	12	15.6	3.00	67
6	19	16.9	3.78	62

Note. Percentiles were determined from the mean raw score and the mean chronological age (120 months for grade 4, 129 for grade 5, and 141 for grade 6).

Table 5

California Test of Mental Maturity
Summary Statistics for Composite Scores

Grade	Number of Students	Raw Score Mean	Raw Score Standard Deviation	Raw Score Percentile of the Mean
Language Section				
4	12	40.3	5.56	86
5	12	43.7	4.64	88
6	19	47.5	5.89	82
Nonlanguage Section				
4	12	40.3	8.54	84
5	12	41.2	6.35	79
6	19	46.6	7.03	82
Total				
4	12	80.7	12.74	86
5	12	84.8	9.55	84
6	19	95.1	11.37	84

Note. Percentiles were determined from the mean raw score and the mean chronological age (120 months for grade 4, 129 for grade 5, and 141 for grade 6).

The Iowa Tests of Basic Skills (ITBS) were used to obtain achievement scores for all 43 students. Average scores ranged from the 69th percentile to the 82nd percentile across tests and grades. Table 6 contains the summary of those ITBS results.

Five of the 10 J. P. Guilford Creativity Tests for Children were given to the students. Those five included Names for Stories, What To Do With It, Different Letter Groups, Hidden Letters, and Adding Decorations. The range was from the 37th percentile to the 96th percentile across tests and grades. Scores were lowest on Names for Stories (percentiles of 37, 52, and 57 for grades 4, 5, and 6 respectively) and highest on What To Do With It (percentiles of 88, 96, and 95 for grades 4, 5, and 6 respectively). Table 7 summarizes these data.

The attitudinal data found no significant differences among scores across grade levels. On the Learner Attitudinal Scale (LAS) raw scores averaged to 80 (maximum range 24-96) and on the School Attitudinal Scale (SAS) raw scores averaged to 71 (maximum range 23-92). No normative data were available.

Table 6

Summary Statistics for the Iowa Tests of Basic Skills

Grade	Number of Students	Mean Grade Equivalent	Standard Deviation	Percentile of the Mean
		Vocabulary		
4	12	5.7	0.47	77
5	12	6.8	1.06	76
6	19	8.0	1.02	78
		Reading		
4	12	6.0	0.54	81
5	12	6.6	0.95	71
6	19	7.8	0.83	73
		Language		
4	12	6.2	0.78	82
5	12	7.1	0.74	77
6	19	7.7	1.28	69
		Work-Study		
4	12	5.8	0.66	82
5	12	6.4	1.22	71
6	19	7.7	1.10	74
		Mathematics		
4	12	5.2	0.75	68
5	12	6.3	0.72	69
6	19	7.7	0.83	76

Note. Tests were administered during the period April 25, 1977, to May 6, 1977. Form 5 of Levels 10, 11, and 12 (1971 edition) were used for grades 4, 5, and 6 respectively.

Table 7

Summary Statistics for the
Creativity Tests for Children

		Raw Score		
Grade	Number of Students	Mean	Standard Deviation	Percentile[a] of the Mean
		Test: Names for Stories		
4	12	9.7	3.17	37
5	11	11.9	3.86	52
6	18	12.6	4.13	57
		Test: What To Do With It		
4	12	13.6	4.23	88
5	11	16.8	6.54	96
6	18	16.9	4.03	95
		Test: Different Letter Groups		
4	12	17.0	5.59	48
5	11	21.1	5.82	72
6	18	21.9	6.02	66
		Test: Hidden Letters		
4	12	22.3	7.27	61
5	11	27.0	7.67	72
6	18	30.8	8.42	79
		Test: Adding Decorations		
4	12	23.8	7.15	68
5	11	27.4	7.14	86
6	18	22.7	7.88	52

Note. Tests were administered in May, 1977. Information about the Tests of Creativity for Children is given in the following reference: Guilford, J. P. Creativity Tests for Children: A Manual of Interpretation. Beverly Hills, Ca.: Sheridan Psychological Services, 1971.

[a] Percentiles are based on the average means for "regular" children and estimates of standard deviations within grades reported by Guilford. He notes, however, that "norms should not be taken too seriously".

Additional Information:

T477-061-9-8 Evaluation of the Title IV-C Program for Challenging the Gifted Child, 1976-77, 1977, Jacquelyn I. Burns, C. LaVor Lym.

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Abstract

Evaluation of the Title IV-C K-3 Curriculum Model, 1976-77

Evaluator: C. LaVor Lym
Jacquelyn I. Burns

Objectives of the Program: The K-3 Curriculum Model program was designed to produce a curriculum framework which would unify educational goals, curriculum philosophy, and instructional strategies for Early Childhood Centers. The replicable model was to encompass six subject areas in a 9-month curriculum. However, the proposal was amended on January 7, 1977. The amendments included the entire re-staffing and re-design of the proposed model. The revised model included all K-3 subject areas, composed of five major components--Sights, Sounds, and Symbols of K-3 Schools and Centers; K-3 Coordinated Baseline; Teacher-Tested Activities; Criterion-Referenced Testing Program; and Staff Development.

Purpose of the Evaluation: The evaluation of the K-3 Curriculum Model was designed to monitor all program activities and give appropriate feedback to the project staff. Results were expected to assist in the development of the final product.

Sample: There were 125 K-3 teachers who were surveyed to ascertain their opinions regarding the development of the model's components and receive their necessary input as to format, content, appropriateness, etc. Seventy-seven (62%) of the 125 K-3 teachers responded to the survey.

Evaluation Design: During the months of March and April, 1977, three K-3 Educational Excellence Seminars were held to introduce to teachers and receive teacher input into the development of the five K-3 components. Of those in attendance, 125 were K-3 teachers. All 125 K-3 teachers were surveyed to obtain their opinions as to the effectiveness of the seminar, and especially, the merits of the components. There were 77 (62%) responses to the questionnaire. These results were then reported to project staff.

The major evaluation questions were:

1. Were the activities relating to the development of the K-3 model completed according to the proposed time schedule?
2. What were the opinions of a panel of curriculum experts external to the DISD regarding the K-3 model?

3. What were the opinions of a panel representing instructional leaders from the DISD and participating private schools regarding the model?

4. Did a sample of K-3 teachers judge the K-3 Curriculum Model as suitable for use in K-3 centers?

5. Were instruments for diagnosis and evaluation of students' achievement as per the instructional goals judged to be appropriate by instructional specialists (content validity) and did the instruments meet the essential criteria set forth in Standards for Educational and Psychological Tests?

Evaluation Results

1. After the proposal was amended in January, 1977, most activities were completed according to schedule. There were five components developed to compose the Early Childhood Education Management System. They were: (a) Sights, Sounds and Symbols of K-3 Schools and Centers, which includes the early childhood handbook and general information; (b) K-3 Coordinated Baseline, including basic skills for each grade level, tests and test interpretation, classroom management, planning methods, parental involvement, and Partners in Learning; (c) Teacher-Tested Activities, including choices for individual teacher and child, and emphasis on real life experiences and oral language development; (d) Criterion-Referenced Testing Program, including level by level tests in all subject areas, available subject area tests, and placement procedures; and (e) Staff Development, including audio-visual presentations and workshops and seminars.

   Four of the five components were completed. The Criterion-Referenced Testing Program Component was contingent upon the completion of the DISD's Criterion-Referenced Testing Program.

2. Since all the components of the model were not completed in 1976-77, the opinions of curriculum experts external to the DISD were not elicited.

3. Since the model was not complete, the opinions of instructional leaders from the DISD and participating private schools were not elicited.

4. Of the 125 teachers attending the K-3 Educational Excellence Seminars, 77 (62%) of these teachers responded. Of those responding 88% felt the model was an improvement over the present program and 84% felt that K-3 teachers would use the K-3 model.

5. There was no assessment of Tests since the Criterion-Referenced Testing component was not completed.

Additional Information:

T477-062-9-9 Evaluation of the Title IV-C K-3 Curriculum Model, 1976-77, 1977, C. LaVor Lym, Jacquelyn I. Burns.

Abstract

Evaluation of the 1976-77
Career Education Program for the Hearing Impaired, K-12

Evaluators: John H. Brem
William T. Denton

Objectives of the Program: To better prepare deaf students for gainful employment or entrance into vocational training centers, trade schools or college, a program of career education experiences was established for grades K-12 in the district's Dallas Regional Day School for the Deaf (DRDSD). The DRDSD provided instruction at Stonewall Jackson Elementary School, Alex W. Spence Middle School, and W. W. Samuell High School. This career eduction program consisted of 11 career areas. The objectives of the program were:

1. To develop teacher manuals for seven career areas (Public/Personal Service; Job Guidance; Construction; Horticulture; Fashion; Transportation; and Repair and Maintenance) to be utilized in grades 6-8.
2. To revise and augment teacher manuals produced in June, 1975 in the career areas of Graphics and Communications; Manufacturing; Business; and Food Services.
3. To produce student texts to be used in the 11 career areas in grades 6-8.
4. To develop career-related materials for use with hearing impaired students in grades K-12. These materials will be made available on a teacher request basis.
5. To establish a career development library composed of career-related materials to be used with grade levels K-12.
6. To provide transportation for the deaf career development students to activities associated with the career program.
7. To provide interpreter services for the various career activities throughout the project period.

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8. To provide the career staff with visits to other career development programs, workshops, colleges or vocational rehabilitation centers in the United States during the project period.

Purpose of the Evaluation: The evaluation of the Career Development Program for the Hearing Impaired was designed to determine the attitudes of the project participants and teachers toward the career education materials produced by the project staff. The evaluation was also designed to determine the characteristics of the project participants and the degree to which the project goals were attained.

Sample: Any student enrolled in the Dallas Regional Day School for the Deaf was eligible to participate in the project. However, the major emphasis during this first year of the project was on the development of materials for the middle school students. A total of 15 (34%) DRDSD teachers utilized at least a portion of the career education materials during the 1976-77 school year. Eight of these were middle school teachers.

Evaluation Design: Since this project was in the first year of development, there were no comparison groups. Rather, attainment of the project goals and attitudes of the participants and teachers were the principal indicators of project success. The major evaluation questions were:

1. Were the goals of the project attained?

2. What were the attitudes of the participants and teachers toward the project?

3. What were the characteristics of the project participants?

Evaluation Results:

1. Teacher manuals for the seven designated career areas were developed and the teacher manuals that were developed for four career areas in 1975 were revised. However, in order to facilitate instruction, some of the 11 career areas were reorganized into 13 career areas. The changes that were made are as follows:

    1. Public/Personal Service is now called Consumer Service.
    2. Job Guidance is now called Self-Awareness.
    3. Construction is now Construction and Maintenance.
    4. Maintenance and Repair is now Repair.
    5. Graphics and Communication is now Printing; Advertising; Photography.

2. A student text for only one (Manufacturing) of the 13 career areas

has been completed. Texts for two of the career areas have not been written and the remaining 10 are awaiting art work and printing.

3. Various materials relating to the 11 career areas were developed and made available to the deaf education teachers. These materials including the teacher manuals were utilized by 15 (34%) of the deaf education teachers.

4. A career development library consisting of career related materials was established at the deaf education middle school. This library was available to all of the deaf education teachers. A check-out system was established and a resource catalog listing the library contents was provided to each of the three deaf education campuses. However, one catalog at each campus proved to be inadequate, thus, the library was not used effectively during the 1976-77 school year.

5. Throughout the 1976-77 school year, the project staff provided the deaf students with transportation for career related field trips. However, due to a lack of funds, no interpreter services were provided for the various career related activities during the project period.

6. The project staff visited various institutions and conferences associated with career education for the deaf. These visits were made in order to exchange ideas and disseminate materials.

7. The participating teachers (15) were asked to respond to a survey concerning their attitudes toward the career education materials which were used during the 1976-77 school year. The results of this survey are as follows:

   - 14 (93%) believed the objectives in the teacher guides were clearly stated with one teacher not understanding the question.

   - 7 (47%) stated that their students were able to master the vocabulary presented in the teacher guides; 3 (20%) indicated that their students could not master the vocabulary and 5 (33%) stated that their students were able to master only a portion of the vocabulary. Those students having difficulty mastering the vocabulary were evenly divided between the elementary, middle and senior high schools.

   - 13 (86%) of the teachers believed that the teacher guides were beneficial in familiarizing their students with the various career fields. One teacher was not sure and the other (elementary) believed that the vocabulary presented was too difficult for elementary age deaf children.

- 11 (73%) believed that the career education materials were helpful in teaching the basic academic subjects; 2 (13%) did not believe they helped. One teacher had used only the teachers guide and one did not respond to this question.

- 11 (73%) of the teachers had taken field trips provided by the Career Development Program staff and all of these teachers believed that the trips were beneficial in orienting their students to the world of work.

- 12 (80%) of the teachers believed that the overall Career Education Program has been beneficial to their students. One teacher requested more actual experiences for the students rather than classroom work with the other two teachers having no opinion.

8. An attitudinal survey, consisting of a slide presentation and response sheets, was administered to the DRDSD middle and senior high students to determine their attitudes toward the career education materials produced during the 1976-77 school year. Only those students who had been exposed to a majority of the materials participated. Thus, no elementary students or senior high students with one handicap were included due to their limited exposure. Also, the low academic and maturity level of the elementary students would have made the results questionable.

   Sixty-eight students (33%) participated in this survey. Fifty-six of these were middle school students and 12 were high school students. However, 19 of the middle school student surveys were considered invalid because the students failed to respond properly to the examples contained on the survey instruments. It was felt that these students did not understand how to respond to the survey, thus, were not counted in the data summary.

   The students were surveyed in three different groupings. The middle school deaf students with one handicap were surveyed in one grouping, the multiple-handicapped middle school students were surveyed in a second grouping, and multiple-handicapped high school students were surveyed in a third grouping. The three groups of students were shown slides of a sample of the career education materials to which they had been exposed during the 1976-77 school year. The students were asked to mark a smiling face if they liked the materials, a frowning face if they did not like them or a face with no expression if they had never seen the materials. The face with a neutral expression was eliminated for the multiple-handicapped middle school students because it was felt that this might tend to confuse them. The results of this survey are presented in Table 1.

Of the materials which were recognized as having been used by the students, 89% received favorable responses on the material survey. This total, together with the teachers' overall favorable impression (80%) of the materials, indicates that the Career Development Program has been well received by both teachers and students during the first year of implementation.

Table 1

DRDSD Student Attitudinal Survey

	% of Materials Liked	% of Materials Not Liked	% Materials Not Seen
Middle school students - 1 handicap	50	3	47
Middle school students-multiple-handicapped	75	25	-
High school students-multiple-handiciapped	48	4	48

9. A total of 206 students attended the Dallas Regional Day School for the Deaf (DRDSD) during the 1976-77 school year. Seventy-six of these students attended Stonewall Jackson Elementary School, 54 attended Alex W. Spence Middle School and 76 attended W. W. Samuell High School. Table 2 contains a summary of the DRDSD students by race and school, and Table 3 contains a summary of the DRDSD students by sex and school.

Table 2

DRDSD Students by Race and School

School	Anglo	M/A	Negro	Other
Stonewall Jackson	32	1	42	1
Alex W. Spence	27	8	16	3
W. W. Samuell	44	10	20	2
Totals	103(50%)	19 (9%)	78 (38%)	6 (3%)

Table 3

DRDSD Students by Sex and School

School	Male	Female
Stonewall Jackson	42	34
Alex W. Spence	25	29
W. W. Samuell	41	35
Totals	108 (52%)	98 (48%)

In order to determine the socio-economic level of the DRDSD students, those participating in the free lunch program were identified. A breakdown of these students, by school, is summarized in Table 4.

Table 4

DRDSD Students Participating
In Free Lunch Program by School

School	# Receiving Free Lunch
Stonewall Jackson	39 (51%)
Alex W. Spence	21 (39%)
W. W. Samuell	19 (25%)
Totals	79 (38%)

Additional Information:

T477-059-9-7 Evaluation of the 1976-77 Career Education Program for the Hearing Impaired, K-12, 1977, John H. Brem, William T. Denton.

Abstract

Evaluation of the Title IV-C Nutrition Education Activity Oriented Program, 1976-77

Evaluator: Allen W. Scott

Objectives of the Program: The Nutrition Education Program was designed to be an integral part of health education in the Dallas schools. Included were activity-oriented modules on nutrition developed for grades 1, 4, 7, and 10. These modules were designed to enable students to make wise food choices for developing appropriate nutrition and eating habits. Strategies included multi-media materials, peer involvement, cross-age tutoring, parent and community involvement and the development of instructional units at specified grade levels. In addition to classroom materials, the program included staff development activities for teachers.

Purpose of the Evaluation: The evaluation of the Nutrition Education Program was designed to determine whether the project was conducted as specified in the management plan and whether the materials developed produced the desired changes in the students served.

Sample: The sample was comprised of two first-grade classes at William B. Travis, two first-grade classes at James Bonham, two first- and two fourth-grade classes at William B. Miller, one fourth-grade class at Herbert Marcus, one fourth-grade class at John J. Pershing, one fourth-grade class at Lisbon, one seventh-grade class at E. D. Walker, two seventh-grade classes at L. V. Stockard, six seventh-grade classes at Boude Storey, one tenth-grade class at North Dallas, one tenth-grade class at F. D. Roosevelt and two tenth-grade classes at H. Grady Spruce.

Evaluation Design: The design for the first- and fourth-grade classes may be represented as follows:

$$X_1\ O_1\ X_2\ O_2\ ---\ X_6\ O_6$$

The treatment X_n represents the six different sets of activities and the observation, O_n represents the criterion-referenced test over the objectives for X_n.

The design for grades seven and ten may be represented as follows:

$$O_1\ X\ O_2$$

The first observation, O_1, represents the administration of a criterion-referenced pretest. The treatment, X, was implementation of the program. The second observation, O_2, represents posttesting on the same criterion-referenced test.

Process evaluation information was collected in two ways. Periodic reviews of the progress of the project in relation to the management plan were conducted. In addition, each classroom in which the program was being implemented was observed by evaluation personnel at least once during implementation of the program.

The major evaluation questions were:

1. What were the characteristics of the population impacted by the program?
2. Was the project implemented as specified in the management plan?
3. What was the gain in criterion test scores for participating first-, fourth-, seventh-, and tenth-grade students?
4. What effect did seventh-grade instructional assistants have on the learning of fourth-grade students?
5. What were the start-up and project continuation costs of the program?

Evaluation Results:

1. The pilot program was implemented in nine schools by 16 teachers in grades 1, 4, 7, and 10. Teachers involved in the program averaged over 10 years professional experience and four of those had acquired experience and training in the nutrition field.

   Students served were a representative sample of the district with the exception of the high income community. This subgroup was underrepresented.

2. All specified activities in the management plan were completed. Pilot testing was to have begun during the second quarter of the 1976-77 school year. Instead, it was begun during the third quarter. Except for the delay, all activities were carried out on schedule.

3. No pretest was administered to the first- and fourth-grade participants. Further, not all classes completed all activities, but the tests were administered as they completed each activity. The number taking each test and the average percent correct are as follows:

	Grade 1		Grade 4	
Test	N	% Correct	N	% Correct
Test 1	107	96.1	93	93.8
Test 2	102	90.1	54	78.3
Test 3	91	78.8	33	67.4
Test 4	23	87.8	25	88.4
Test 5	24	94.9	15	95.0

For grades seven and ten the pretest and posttest mean for those having both scores may be seen as follows:

	N	Pretest Mean	Posttest Mean
Grade 7	84	14.84	17.47
Grade 10	77	9.96	15.03

The seventh-grade test contained 23 items and the tenth-grade test contained 21 items.

The mean gain was 2.66 for the seventh grade and 5.07 for the tenth grade.

4. Only two sets of test results were available for the students with seventh-grade assistants. On Test #1 every student scored 100% compared with 92.3% for other students. On Test #4 the test class averaged 87.8% correct, but no other class received Test #4.

5. The start-up cost for the program was $36,699.04. Although the project was not refunded for 1977-78 under Title IV-C funds, $25,000 has been requested from other sources for continuation of the program.

Additional Information:

T477-107-9-4 Evaluation of the Title IV-C Nutrition Education Activity Oriented Program, 1976-77, 1977, Allen W. Scott.

Abstract

Evaluation of the ESEA Title IV-C
Dallas Environmental Program of Study

Evaluator: Allen W. Scott

Description and Purpose: A multidisciplinary, activity-centered environmental education program was to be developed which would allow students to develop the processes of environmental problem solving and responsible decision making. This program was to be developed for grades five through eight in six phases including a pilot testing phase which was to be conducted at Mark Twain Vanguard School and Sequoyah Academy. A large tract of Dallas Independent School District land in Seagoville was to be utilized by the students in their studies.

The goals of the program were to provide students the opportunity to deal with real environmental problems in their own community and to learn ecological principles, relationships, and concepts from direct observations within the Dallas area.

Purpose of the Evaluation: The evaluation of the Dallas Environmental Program (DEP) was designed to determine whether the project was conducted as proposed and to determine the impact on staff and students served.

Sample: It was proposed that the program be formally tested with students enrolled in Mark Twain Vanguard and Sequoyah Academy. Some activities were implemented in these schools, but no formal design testing was done. Student activities were written late in the year when no students were available for testing.

Evaluation Design: Although a formal evaluation of all materials developed was proposed, the fact that the materials were not design tested prevented implementation of the evaluation plan.

Process evaluation was conducted by way of periodic monitoring of the project in relation to the management plan.

The major evaluation questions to have been investigated were as follows:

1. What were the characteristics of the students in the pilot schools?
2. Was the project implemented as specified in the management plan?
3. Was the staff development component successful in motivating and training professional school staff to develop a plan for their school which would involve students in identifying and solving environmental problems in their community?

4. Did participating students demonstrate mastery of program objectives?

5. Was there an improvement in problem-solving and decision-making skills of participating students?

6. Was there a change in the attitudes of students toward improving the environment?

7. What was the start-up cost and the projected continuation cost of the project?

Evaluation Results:

1. Before it became apparent that the program would not be ready for design testing, students at Mark Twain Vanguard filled out personal information sheets. The following information was derived from these sheets:

Grade Distribution

Grade	N	Percent of Total
Fourth	70	41%
Fifth	50	29%
Sixth	50	29%
TOTAL	170	100%

Ethnic Distribution

Ethnicity	N	Percent of Total
Black	111	65%
Anglo	51	30%
Mexican-American	8	5%
TOTAL	170	100%

Previous Exposure to Environmental Study

Type of Experience	N	Percent of Total
Gardening	125	74%
Camping Training	72	42%
Energy Crisis Awareness	26	15%
Library Programs	18	11%
Environmental Clean-up	99	58%
Pollution Prevention	50	29%
Scouting and Related Organizations	111	65%

Note. The total number of students was 170.

2. Not all activities were completed on schedule. The building (laboratory) that was to have been completed by October 31, 1976, was still not completed as of August, 1977. The failure of the District to provide the laboratory in a timely manner as proposed severely hampered the project. Without access to the laboratory most student activites could not be implemented. As a result, none of the activities were formally tested.

3. School staff members participating in the staff development activities made verbal commitment to planning for the involvement of students in the identification and solution of environmental problems in their communities according to project personnel.

4-5. Although student activities were written late in the project year they were not tested.

6. Secondary students informally involved in activities verbally indicated an increased interest in improving the environment according to project personnel.

7. The project was funded at $62,400 by Title IV-C. In addition, the District was to have provided a laboratory on the Seagoville site (no cost estimate was available for the laboratory). Although the project was denied refunding under Title IV-C, $42,000 has been requested from other sources.

Additional Information:

T477-054-9-4 Evaluation of the ESEA Title IV-C Dallas Environmental Program of Study, 1977, Allen W. Scott.

Abstract

Evaluation of the 1976-77 Job Placement, Counseling and Follow-Up Project

Evaluators: John H. Brem
William T. Denton

Objectives of the Program: A Job Placement Counseling and Follow-Up Center was established in the immediate North Dallas area at the beginning of the 1976-77 school year. This center was to identify 17 and 18 year old high school dropouts and to provide these individuals with job counseling, referral and follow-up services. The overall goal of the project was to secure jobs for 25% of the program participants. It was felt that if dropouts could be successful in securing and maintaining a job, they might be encouraged to pursue additional training and/or education.

Four senior high schools (W. H. Adamson, North Dallas, Thomas Jefferson and Sunset) were selected to participate in the project during the 1976-77 school year. The project participants from these four schools were to be provided counseling and assistance in obtaining employment. Once the participants had obtained jobs, the Center was to continue to provide them with counseling and also to determine their job performance through interviews with their employers.

Purpose of the Evaluation: The evaluation of the Job Placement project was designed to determine the attitudes of the participants and employers toward the project and to what degree the project goals were attained. In addition, the evaluation was to determine the characteristics of the project participants as well as the costs associated with placing these participants in jobs.

Sample: Any 17-or 18-year-old dropout from one of the four designated senior high schools (W. H. Adamson, North Dallas, Thomas Jefferson and Sunset) was eligible to participate in the project. During the 1976-77 school year, these four participating schools provided the job placement office with the names of 633 probable dropouts. This 633 included 101 individuals who had stopped attending class during the 5th and 6th six-week periods of the 1975-76 school year. Of these 633 probable dropouts, the job placement office identified 109 as available to participate in the project, with 50 actually participating during the 1976-77 school year.

Evaluation Design: Since this project was in the first year of development, there were no comparison groups. Rather, status of the participants prior

to and after treatement were the principal indicators of project success.

In addition, process evaluation was conducted throughout the project period to assess project performance. Included in this process evaluation were structured interviews with 13 of the program participants and six of the employers. These interviews were conducted in May, 1977, and represent 39% of the dropouts and 100% of the employers who were actively participating in the program at that point in time.

The major evaluation questions were:

1. Were the job placement goals attained?

2. What were the attitudes of the project participants and employers toward the project?

3. What were the characteristics of the project participants?

4. What were the costs associated with the project?

Evaluation Results:

1. The names of 633 probable dropouts were provided to the Job Placement Center by the four participating schools. The Center determined that 109 (17%) of these individuals were available to participate in the program with 50 (8%) actually participating. The center placed 25 (one-half) of the participants on one or more jobs during the project period. However, as of May 31, 1977, only three (12%) of these 25 participants had retained their jobs. This indicates that motivating dropouts to retain and do well on their jobs may be more of a problem than the actual placement of the individuals.

   Table 1 contains the known status of the 633 individuals identified as probable dropouts.

2. A job placement, counseling, and follow-up model was not developed as planned.

3. Due to a lack of systematic record keeping, it could not be determined if each program participant received job counseling or if the performance of each participant placed on a job was assessed. However, based on the records examined, it appeared that approximately one-third received counseling from the Center and the job performance was assessed for about one-half of the placements. It should be noted that the job counselor, provided by the Texas Employment Commission, was recalled in January, 1977, making the counseling function somewhat more difficult to perform.

TABLE 1

STATUS OF STUDENTS IDENTIFIED AS PROBABLE DROPOUTS

Status	Participating High Schools				
	Adamson	North Dallas	Sunset	Thomas Jefferson	Total
Attending same school	9	9	7	2	27
Attending other DISD high school	14	7	5	13	39
Attending DISD Metro. school	2	5	-	1	8
Attending public school outside DISD	7	5	8	16	36
Attending trade school	1	2	2	3	8
Employed	12	11	20	10	53
Unable to locate	93	74	116	70	353
Not interested in participating	19	16	16	8	59
Participating	18	18	8	6	50
Totals	175	147	182	129	633

4. During the first week of May, 1977, an attempt was made to interview all of the program participants as well as the employers of those employed at that time. As of the first of May, there were 33 active participants of which six were employed, However, four of these six participants had been employed for two weeks or less, which somewhat limited the information the employers were able to provide.

   Keeping in mind the limited information the employers could provide as well as the small number of employers involved, the interviews seemed to indicate:

   - approximately 50% of the employers were dissatisfied with the work performance of the participants.

- fifty percent of the employers were satisfied with their relationship with the Job Placement Center and would recommend it to others. The other employers had not had enough contact with the Placement Center to make a judgment.

- the Job Placement Center had maintained contact with the employers regarding the work performance of the participants.

- there are many jobs available in their types of business for high school dropouts. The main problem is finding those that are responsible and willing to work.

5. Of the 33 dropouts who were actively participating in the program as of the first week of May, 1977, 13 (39%) were interviewed regarding their attitudes toward the job placement program. Three of these participants were interviewed in person with the remainder being interviewed by telephone. The other 20 (61%) active participants could not be contacted. The results of these participant interviews are as follows:

   - approximatey 50% of the 13 participants interviewed had recieved jobs through the Job Placement office.

   - an average of two referrals had been required for each job placement.

   - approximately 50% of the participants interviewed had quit school for financial reasons; 30% for academic reasons; and the remaining 20% for other miscellaneous reasons.

   - ninety-two percent of the participants interviewed needed help obtaining a job once they had quit school.

   - eighty-four percent of the participants interviewed were satisfied with the assistance provided by the Job Placement office.

   - ninety-two percent of those interviewed intend to complete their high school education.

6. In addition to the lists of no-shows, the counselors from each of the participating schools provided the Job Placement Center with lists of potential dropouts. These were students the counselors felt might be forced to quit school due to financial problems, thus, were referred to the Center for placement into part-time jobs.

   As of May 31, 1977, a total of 19 students had participated in part-time placement segment of this program with six presently participating. These students had been sent on a total of 20 job interviews with ten being placed on part-time jobs. Six of these 19 students have now been listed as dropouts and are included in the dropout data. The Center had placed four of these six participants in part-time jobs prior to their dropping out of school.

7. Tables 2 and 3 below provide a breakdown by school of the sex and ethnicity of the program participants.

TABLE 2

PROGRAM PARTICIPANTS BY SEX AND SCHOOL

School	Male	Female
Adamson	12	6
North Dallas	17	6
Sunset	3	7
Thomas Jefferson	4	2
*Totals	36 (63%)	21 (37%)

TABLE 3

PROGRAM PARTICIPANTS BY ETHNICITY AND SCHOOL

School	Black	M/A	Anglo	Other
Adamson	7	8	2	1
North Dallas	8	13	2	-
Sunset	1	8	1	-
Thomas Jefferson	3	2	1	-
*Totals	19 (33%)	31 (54%)	6 (11%)	1 (2%)

8. The budget for the Job Placement, Counseling, and Follow-Up Project was $36,575.

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*These totals include 7 walk-in participants not included in the 633 no-shows reported by the schools.

Additional Information:

T477-058-9-7 Evaluation of the 1976-77 Job Placement Counseling and Follow-Up Project, 1977, John H. Brem, William T. Denton.

T477-117-3-6

Abstract

Evaluation of the Title IV-C
Laboratory Courses in Creative Arts, 1976-77

Evaluator: Allen W. Scott
Joseph Gonzales

Objectives of the Program: The Laboratory Courses in Creative Arts was an ESEA Title IV Part C project funded to develop criterion-referenced, multicultural materials in the creative arts. Major emphasis was to be placed on the contributions of non-white artists and art forms as well as differences and similarities across the arts. Student and teacher materials for both seventh and ninth grades were to be produced and tested.

The curriculum was designed to increase student knowledge and appreciation (acceptance) of a wider range of creative arts.

Purpose of the Evaluation: The evaluation of the Laboratory Courses in Creative Arts was designed to determine if the activities specified in the Management Plan were accomplished as specified and if the materials developed led to student mastery of specified objectives.

Sample: Two samples were included in the first phase of testing. A sample of 11 seventh-grade students in Spence Middle school tested the seventh-grade materials and five ninth-grade students in North Dallas High School tested the ninth-grade materials.

Five of the seventh-grade students were boys and six were girls. The group included two Whites, six Mexican-Americans, and three Blacks.

Ninth-grade students were volunteers from a last period study hall. They could not get credit for the course and were erratic in attendance. Although as many as 16 started the program only five attended often enough to be considered participants. All five were Black; three were female and two were male.

Evaluation Design: The design for collection of process information was monthly monitoring of activities specified in the Management Plan.

The design for collection of context and product information could be schematically represented as follows:

Seventh Grade: O_1 X O_2

Ninth Grade: O_1 X O_2

The treatment (X) represents instruction in the creative arts program. The first observation (0_1) represents context information collected on participating students on a student questionnaire. The second observation (0_2) was testing on criterion referenced tests. An arbitrary criterion of 75% mastery of at least 75% of the posttest items was established for the materials.

The major evaluation questions were:

1. What are the characteristics of (a) the advisory panel members and (b) the students involved in the first stage of testing?
2. Was the project implemented according to the management plan?
3. Were concepts approved by the advisory panel?
4. What percent of the test items were mastered before revisions were made?
5. What percent of the test items were mastered after revisions were made?
6. What were the start-up and projected continuation costs of the program?

Evaluation Results:

1. Advisory Panel: The advisory panel was composed of 17 professional artists from public education, area colleges and universities, the Dallas Museum of Fine Arts, the Dallas Theater Center, private fine arts schools and a department store. Three of the members had a background in music; five in dance; one in both visual art and drama; five others in visual art; and three others in drama. All targeted ethnic groups were included in the advisory panel.

   Students: Eleven seventh-grade students participated in the design test of the program. Five were boys and six were girls. The class included two Whites, six Mexican-Americans, and three Blacks. All of the participants indicated that they had participated in some creative arts activities before entering the program. Two of the students had maintained an A or B overall grade average the previous quarter. All others had a C average or lower.

   All five ninth-grade participants were Black. Three were female and two were male. Those indicating a grade average the previous quarter had C's. Three did not indicate an average. Four had participated in school plays; one, in modern or jazz dance (he probably meant popular or disco); one played the piano and one played the clarinet.

2. In spite of a two-month delay in the start-up of the project all process objectives were met or surpassed. All proposed activities but one were completed and expanded. One activity, to revise and retest each learning activity not leading to objective mastery by at least 75% of the participants, was only partially met. Although these activities were revised, they were not retested. Many more activities at each grade level than the minimum of two specified were developed. By the end of the summer a complete quarter of curriculum for each grade level will be ready for testing. Many, but not all activities have been tested and revised.

3. All concepts were based on input from the advisory panel. These concepts were then ranked by each member of the panel. Those approved by the majority of the panel formed the concept domain for the program.

4. The data in the table below are a summary of the results of the seventh-grade material tested.

Seventh-Grade Criterion
Test Results

Test	Percent of items Correct by at least 75% of students
Unit Interim Tests	
Music	Not Tested
Dance	40
Visual Arts	83
Drama	70
Unit Posttest	83

As the data reveal at least 75% of the seventh-grade students correctly answered 83% of the posttest items.

The ninth-grade test situation left much to be desired. Students could not get credit for the course; they could only attend during study hall, and attendance was voluntary. Only five students attended frequently enough for testing. The following table summarized the results.

Ninth-Grade Criterion
Test Results

Test	Percent of items Correct by at least 75% of students
Unit: Introduction "Why Creative Arts"	70
Unit: Creating the Arts	50

As the data reveal the 75% criterion was not met on either test. Erratic attendance patterns precluded interim testing. Even these data were probably adversely effected by inconsistent attendance.

5. The materials were not retested after revisions were made.

6. The total budget, including indirect costs, for the project during 1976-77 was $69,771. If a budget amendment submitted to TEA is approved, virtually all of this budget will be used. The projected budget for 1977-78 is about $70,000.

Additional Information:

T477-117-9-6 Evaluation of the Title IV-C Laboratory Courses In Creative Arts, 1976-77, 1977, Allen W. Scott, Joseph Gonzales.

Abstract

Evaluation of the Title IV-C Living Materials Implementation Model, 1976-77

Evaluator: Allen W. Scott
Joseph Gonzales

Objectives of the Program: The Living Materials Implementation Model was designed to enable teachers to order living materials such as common plants, nonpathogenic bacteria, protozoa and small animals from a Living Materials Center located within the District.

The Living Materials Center provided teachers in secondary and elementary schools with the opportunity to obtain living plants and animals at no cost to themselves or to their school. Delivery and return of materials were handled by the Center at no inconvenience to the teacher or school.

Purpose of the Evaluation: The evaluation of the Living Materials Center was designed to determine if the program was additionally effective in providing teachers with a ready source of plants and animals for classroom use.

Sample: In the fall of 1976 a mail survey was sent to 461 randomly selected elementary and secondary teachers who were responsible for teaching science during the 1975-76 school year. Of this number 189 were returned. A follow-up interview was conducted with a randomly selected sample of 73 teachers who did not respond to the initial mail survey.

During the third quarter 100 randomly selected teachers in grades K-12 were interviewed.

Of the estimated 725 teachers ordering living materials from the Center, 92 were randomly selected to complete a User Satisfaction Checklist.

Observation of deliveries were made on two occasions. Approximately 11 schools were visited on each occasion. The schools visited were those for which deliveries were scheduled on the days of observation.

Evaluation Design: The mail survey of teachers was conducted in October, 1976, in grade levels K-3, 4-6, 7-8, and 9-12. The participants in the survey were homeroom teachers (grades K-3) and science teachers (4-12) who had taught science before the Living Materials Center was established. Approximately two teachers were randomly selected from each of the DISD schools with the exception of level 9-12 in which case all life science teachers were surveyed. The total number of questionnaires sent was 461 and the total returned was 189 or 41% of the total mailed. A follow-up interview of randomly selected teachers from those who had not returned the questionnaire was conducted in December when it was decided that the rate of return was too low to sustain confidence.

The results of the follow-up interviews were deemed representative of the 272 teachers who had not responded to the mail survey. Weighted response patterns based on the ratio of 189 to 461 for respondents and 272 to 461 for nonrespondents were computed to estimate district-wide response patterns.

A third survey was conducted by interview during the third quarter of the 1976-77 school year. The interviewees consisted of 100 DISD teachers randomly selected from the list of 461 described above. Selection was made from a table of random numbers without regard to grade level. All 100 participants responded to the survey interview. The results were tabulated in relation to the results of the fall survey and follow-up.

A User Satisfaction Checklist was distributed to 92 teachers randomly selected from those who had ordered living materials from the Center during the year. The Checklist measured teachers' perceptions of the services provided by the Center. Response distributions for each item were tabulated.

Two observations of delivery of living materials were conducted to determine the reactions of office personnel, teachers, and students when the living materials were delivered. Schools selected were those for whom deliveries were scheduled on the days observed.

The major evaluation questions were:

1. What was the extent of use of living materials and their sources during the 1975-76 school year?
2. Was the project implemented as specified in the management plan?
3. Were teachers satisfied with the products and services of the Living Materials Center?
4. Was there any change in the extent of use of living materials from 1975-76 to 1976-77?
5. What living materials were made available through the project?
6. What were the start-up and continuation costs of the Living Materials Center and how does this compare with alternative methods of obtaining living materials?

Evaluation Results:

1. Among the sample of 461 teachers who were surveyed many had maintained more than one kind of living material. An estimated 361 or 78% had maintained plants, 223 or 48% had animals, and 154 or 34% had maintained aquaria in the classroom.

The average number of times teachers reported using living materials during 1975-76 was 29 times for K-3, 34 times for 4-6, 38 times for 7-8 and 45 times for 9-12. The overall average was 34 times.

The number of different types of living materials used by teachers averaged 3.9 for K-3, 5.1 for 4-6, 7.2 for 7-8, and 9.1 for 9-12. The average was 5.5 for all grade levels.

2. All project activities specified in the management plan were implemented and completed as planned.

3. Of the 92 Living Materials Center users surveyed, 90 (98%) indicated that they were satisfied with the services provided.

4. Teachers who were surveyed during the third quarter were asked if they had used living materials more this year than the previous year. Thirty-six teachers (36%) said yes, 60 (60%) said they used about the same amount, and 4 (4%) said they used less. However, compared to the October survey, wherein teachers were asked to report on the use of living materials during 1975-76, all grade levels consistently averaged less teacher use of living materials. Technical considerations would tend to lend more credence to the former statement which indicated an increase in the use of living materials from 1975-76 to 1976-77.

5. The Center supplied a variety of different kinds of algae, non-pathogenic bacteria, fungi, potted plants, mosses and ferns, seeds, vertebrates, invertebrates and protista. In addition, fertile eggs, brine shrimp, nutrient agar plates, and starch agar plates were routinely available.

6. The cost of the Living Materials Center for 1976-77 was $45,000. This included the cost of start-up equipment for handling living materials. The continuation cost for 1977-78 will be increased to $58,644. This will provide for the additional servicing of four districts other than Dallas.

   Had the schools purchased the living materials commercially, the estimated cost would have been $8,238.03 for the 188 schools which obtained materials. The average was $43.82 per school. This does not include basic transportation cost provided by the Center as a convenience to the schools. The senior high schools totaled $2,793.66, averaging $143.03; the middle schools totaled $1,167.55, averaging $55.60; the elementary schools totaled $3,674.77, averaging $27.25; the specialty schools (e.g., vanguard, academy, magnet schools) totaled $520.20, averaging $38.06; and the private non-profit schools totaled $292.55, averaging $58.51. (All estimated values based on wholesale prices for materials were provided by the LMC.)

Additional Information:

T477-109-9-4 Evaluation of the Title IV-C Living Materials Implementation Model, 1976-77, 1977, Allen W. Scott, Joseph Gonzales.

Abstract

Evaluation of the 1976-77
Health Education - Skills For Living Project

Evaluators: John H. Brem
William T. Denton

Objectives of the Program: Health education curriculum packages, covering six content areas, were to be developed to assist teachers in implementing the science health baseline curriculum at all academic levels within the DISD. The content areas to be covered were personal growth and development; mental health; consumer health; environmental health and safety; chronic and degenerative disease; and health and fitness.

The rationale behind the creation of the materials was that, although there were a variety of materials available for the six content areas, there were no complete sequential curriculum packages available for the teachers to use. It was believed that such packages would enhance the baseline material and provide activities that would reach students at all academic levels.

A personal development program was to be prepared by the project staff to: (1) familiarize teachers with the curriculum packages, (2) provide for continuous feedback sessions for the teachers involved, (3) provide teachers with additional resource materials, and (4) refine teaching strategies presented in the packages. The curriculum packages were to be pilot tested during the Spring semester of the 1976-77 school year.

Purpose of the Evaluation: The evaluation of the Skills for Living Project was designed to determine the attitudes of the teachers and students toward the curriculum packages and to what degree the project goals were attained.

Sample: The curriculum packages were pilot tested by 22 teachers in 20 schools during the last two weeks of the 1976-77 school year. The pilot testing configuration consisted of the following:

- 5th grade - 7 teachers, 7 schools, 6 content areas
- 7th grade - 7 teachers, 6 schools, 6 content areas
- 9th grade - 8 teachers, 7 schools, 6 content areas

Evaluation Design: No instruments were developed during the project period to access student gains. Therefore, the attainment of project goals and the attitudes of the teachers and students toward the curriculum package will be the principal indicators of project success.

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The major evaluation questions were:

1. Were the goals of the Skills for Living project attained?

2. What were the attitudes of the teachers and students toward the project?

3. Did student knowledge gain after exposure to the curriculum packages?

Evaluation Results:

1. The curriculum for each of the six health content areas was completed in April, 1977. However, there were some delays in the printing of the materials due to other priorities of the print shop. The materials were finally printed and distributed to the teachers participating in the pilot testing program the week of May 16, 1977.

2. The Skills for Living staff conducted an orientation workshop for the senior high health teachers during the DISD staff development session held April 8, 1977. This workshop was attended by 28 (90%) of the 31 senior high health teachers. No formal orientation sessions were held with the middle and elementary health education teachers. The teachers at these two levels, who were to participate in the pilot testing of the curricula, were given orientation on an individual basis. In addition to the formal workshop, the participating senior high health teachers, were also given individual orientation on the use of the materials.

3. Due to the delays in getting the materials into the schools, the pilot testing period was limited to ten days (May 18-31). The 22 participating teachers were instructed to teach as many of the health lessons as possible during this time frame. As a result of this time limitation, the fifth grade teachers taught 54% of the lessons; the seventh grade teachers taught 59% of the lessons; and the ninth grade teachers taught 72% of the lessons. Overall, the teachers taught 61% of the lessons.

4. Each of the 22 participating teachers was asked to respond to an attitudinal survey regarding the health units he/she had taught. Twenty (91%) of the teachers responded to the survey with the results as follows:

   - all of the teachers were given adequate instructions on how to implement the curricula and were provided the materials prescribed by the lesson plans.

   - nineteen (95%) of the teachers believed that the acitvities prescribed by the lesson plans were adequate for teaching the health education concepts.

- due to lack of time (10 days), only six (30%) of the teachers were able to teach all of the lessons. The 20 teachers that responded to the survey taught a total of 61% of the lessons.

- eighteen (90%) of the teachers had a very positive attitude toward the health education materials that they had time to use. They thought these materials were beneficial to their students but some felt that student performance would be difficult to evaluate. One teacher expressed disappointment that no evaluation instruments were included with the materials. (The project staff reported that no assessment instruments were developed for the health curricula due to time limitations.)

- two (10%) of the teachers rated the materials as "fair". One felt that the lessons would be more effective if they were correlated with the health basal text. The other teacher felt that most of the materials were included in the basal text.

5. Each of the participating teachers was asked to administer a brief attitudinal questionnaire to their students once they had completed the pilot testing of the materials. This survey was to determine if the students liked the health education materials presented. A total of 19 teachers and 387 students responded to this request. The results of this survey are presented in Table 1 by grade level and in Table 2 by health content area.

6. The surveys indicate the curriculum materials implemented were well received by both teachers and students. As noted previously, 90% of the responding teachers and 74% of the responding students were favorably impressed with the curriculum materials. Also, of the 100 students whose responses were not classified as positive, only 16 (4%) were actually negative. The responses of the remainder were inclusive.

7. The major concerns of the teachers regarding the implementation of the curricula were (1) inadequate time allowed for the pilot testing and (2) the projected difficulty of trying to evaluate student performance on many of the activities prescribed in the lessons. Many of the activities call for class discussions without actually requiring the students to demonstrate specific knowledge about the subjects.

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TABLE 1

STUDENT ATTITUDINAL SURVEY BY GRADE LEVEL

Grade 5			Grade 7			Grade 9			Totals		
Positive	Negative	Don't Know	Positive	Negative	Don't Know	Positive	Negative	Don't Know	Positive	Negative	Don't Know
120 (78%)	3 (2%)	30 (20%)	80 (66%)	7 (6%)	34 (28%)	87 (77%)	6 (5%)	20 (18%)	287 (74%)	16 (4%)	84 (22%)

TABLE 2

STUDENT ATTITUDINAL SURVEY BY HEALTH CONTENT AREA

Mental Health			Environmental Health			Chronic and Degenerative Disease			Health and Fitness			Consumer Health			Personal Growth and Development		
Pos.	Neg.	Don't Know	Pos.	Neg.	Don't Know	Pos.	Neg.	Don't Know	Pos.	Neg.	Don't Know	Pos.	Neg.	Don't Know	Pos.	Neg.	Don't Know
80 (88%)	4 (4%)	7 (8%)	44 (66%)	3 (4%)	20 (30%)	76 (74%)	4 (4%)	23 (22%)	51 (89%)	1 (2%)	5 (9%)	12 (41%)	- -	17 (59%)	24 (60%)	4 (10%)	12 (30%)

Additional Information:

T477-57-9-4 Evaluation of the 1976-77 Title IV-C Health Education - Skills for Living Project, 1977, John H. Brem.

Abstract

Evaluation of the Title IV-C Disseminating Alternative Modes of Discipline, 1976-77

Evaluator: Allen W. Scott

Objectives of the Program: Alternative Modes of Discipline was designed to identify, collect, and compile 100 proven strategies for disciplinary decision-making. Once compiled the strategies were to be placed in booklet form and distributed to the 20 Regional Educational Service Centers.

Purpose of the Evaluation: The evaluation of the Alternative Modes of Discipline was designed to determine if the program activities were carried out and completed as specified according to the management plan.

Evaluation Design:

The major evaluation question was:

1. Were activities in the management plan completed and were the booklets disseminated?

Evaluation Results:

1. All activities were completed as specified in the management plan. The booklets were completed on schedule and disseminated to all principals who participated in the survey. The booklets were also distributed to 20 Regional Educational Service Centers throughout the state. Local principals received the booklets at workshops on July 27-28, 1977.

Additional Information:

T477-050-9-5 Evaluation of the Title IV-C Disseminating Alternative Modes of Discipline, 1976-77, 1977, Allen W. Scott.

Abstract

Evaluation of the Title IV-C Project to Identify and Disseminate Successful Practices for Eliminating Institutional Discrimination, 1976-77

Evaluator: Allen W. Scott

Objectives of the Program: The program was designed to identify successful practices in the District's efforts to eliminate institutional discrimination as well as successful practices from other districts. The results were to be refined and packaged in their most usable form and disseminated to local education agencies through the Regional Service Center network.

Purpose of the Evaluation: The evaluation of the Discrimination program was designed to determine results of obtaining successful practices and the dissemination of the finished packages.

The evaluation question was:

1. Were the activities in the management plan completed and were the booklets disseminated?

Evaluation Results:

1. All activities were completed as specified in the management plan. The booklets were completed on schedule and disseminated to all principals who participated in the survey. Booklets were also distributed to 20 educational service centers throughout the state. Local principals received the booklets at workshops on July 27-28, 1977.

Additional Information:

T477-051-9-5 Evaluation of the Title IV-C Project to Identify and Disseminate Successful Practices for Eliminating Institutional Discrimination, 1976-77, 1977, Allen W. Scott.

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Abstract

Evaluation of Title IV-C Parent Education Program

Evaluators: Cordelia R. Alexander
Patricia A. Montgomery

Objectives of the Program: The 1976-77 Title IV-C Parent Education Program (PEP) was designed for the development of a parent participation program which would provide parents with an understanding of their children's educational program and skills necessary to assist their children in those programs. The major goals as outlined by the PEP proposal were: (1) 50% of the parents involved in the PEP would identify the major goals of three curricular areas of their children's educational program; (2) by April 1, 1977, the Dallas Independent School District (DISD) regular community liaison personnel would have trained 25% of the parents in the targeted area in methods to assist in their children's educational program; (3) at the conclusion of the project period the PEP would be disseminated through the Regional Educational Service Center network and the Parenting Materials Information Center of the Early Childhood Division of the Southwest Educational Development Laboratory in Austin.

Purpose of the Evaluation: The evaluation was designed to assess (1) the extent that scheduled activities were completed during interim periods and to determine the number of parents served and (2) the end-of-year results in the realization of the projected PEP goals.

Sample: The participants in the Parent Education Program were the parents of students in kindergarten through third grade from seven pilot schools. The pilot schools included Arcadia Park, Buckner, Dunbar, Hexter, Kramer, Thornton, and St. Anthony's, an inner-city parochial school.

Evaluation Design: Project data were obtained through interviews with program personnel, observation of activities, participant surveys at each PEP meeting, and other surveys of participants and building personnel in the pilot schools following program implementation. All surveys were developed by the evaluator in cooperation with PEP personnel. The following evaluation questions were analyzed:

1. Was the Parent Education Program (PEP) implemented as proposed? What were the indices of this implementation?

2. How many parents were involved in the PEP?

3. What were some participant reactions regarding the program?

4. How often were teachers and community liaison persons in contact with targeted parents?

5. To what extent were the goals of the PEP realized?

6. What were the costs of the PEP?

Evaluation Results:

1. Program implementation was facilitated primarily through a series of orientation meetings and workshops conducted in the seven pilot schools. A calendar for 1977 outlining activity suggestions to involve parents in their children's learning was developed for use as a parent handout. Additional parent contact was established through a special project thrust involving all the kindergarten children in four of the pilot schools.

2. A total of 781 parents representing 721 families attended at least one PEP meeting or received PEP materials through teacher/community liaison conferences. This number represents 37% of the total enrollment by families in the seven pilot schools. In addition, the parents of 404 children active in the kindergarten sticker project were exposed to PEP activity suggestions through sticker messages worn home.

3. The results from all surveys indicated that most participants regarded the program as highly beneficial to them in aiding their child's education and that they admired the competence and enthusiasm of the PEP staff.

4. Teachers and community liaison persons in the pilot schools provided some assistance to parents at workshops and several disseminated PEP materials through parent conferences.

5. The original proposal objective requiring identification of curricular goals proved inappropriate in that specific goals focusing on the six major curricular areas have not been written into the DISD Baseline Curriculum. The main emphasis of the PEP for this school year was the development of a parent participation program which would provide parents with an understanding of their children's educational program and skills necessary to assist their children in those programs.

Major activities included six orientation meetings and 10 workshops conducted in the seven pilot schools and kindergarten stickers with child/parent interaction messages sent home in four of the pilot schools. The percentage of parents receiving training in methods to assist their children's educational program through PEP meetings and disseminated materials easily exceeded the 25% criterion established in the proposal.

Throughout the project period PEP products have been requested by various parenting agencies and school districts throughout the state. A booklet and slide-tape presentation outlining the complete program as implemented during the 1976-77 school year will be utilized in DISD staff development programs and disseminated in August, 1977, through the agencies outlined in the PEP proposal.

6. The budget for the PEP was $36,000. Budget monies were primarily allocated for payroll, program supplies, and printing of materials and products. There were not sufficient funds to cover the quantity of requests received for PEP products from groups outside the program's pilot area.

Additional Information:

T477-041-9-5 Evaluation of Title IV-C Parent Education Program, 1977, Cordelia R. Alexander, Patricia A. Montgomery.

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Abstract

Evaluation of Title IV-C Community Involvement Strategies

Evaluators: Cordelia R. Alexander
Patricia A. Montgomery

Objectives of the Program: The goals of the Community Involvement Strategies (CIS) Project were to be achieved through the development of a handbook of community involvement strategies. The specific goals of the CIS were to: (1) identify successful community involvement practices used in the DISD and on the national level; (2) review related literature on community involvement; (3) develop a handbook which will enable the building principal to select and implement community involvement strategies which are appropriate for the intended constituencies; and (4) disseminate the handbook using the DISD Education Service Center network.

Purpose of the Evaluation: This evaluation was designed to (1) identify and assess the method employed to determine the choice of appropriate community involvement practices and (2) examine the extent to which the goals were accomplished through actual publication and dissemination of the handbook.

Sample: Standard sample not utilized in project.

Evaluation Design: Interviews with the project personnel were conducted to obtain information on assessment procedures utilized in the compilation of the "Community Involvement Strategies Handbook" for principals.

A sampling product was published by the CIS staff and disseminated to all DISD principals with an evaluation checklist. The preview handbook and principals' responses were provided by the project's staff for the evaluator's review. The following evaluation questions were analyzed:

1. Was the Community Involvement Strategies (CIS) Project implemented as proposed? What were the indices of this implementation?

2. To what extent was the method employed to assess community involvement practices appropriate?

3. What were the characteristics of the handbook?

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4. Were the goals of the CIS project realized?

5. What were the costs of the CIS Project?

Evaluation Results:

1. The CIS Project was implemented as proposed with the final production of a "Community Involvement Strategies Handbook" for principals scheduled for publication and dissemination by August, 1977.

   The compilation of community involvement strategies by the project staff was facilitated on the District level by 30 DISD Community Specialists, the DISD Community Involvement Council, and other DISD community involvement programs and personnel. Services for the nation-wide survey for strategies were contracted between the DISD and Glassboro State College in Glassboro, New Jersey.

   A sampling of the materials being compiled into the handbook was published in June and disseminated to all DISD building principals for a preliminary evaluation. The 35% who returned their evaluation surveys responded positively to the handbook's projected usefulness.

2. Reports of successful community involvement programs throughout the District were submitted weekly by the Community Specialists to the CIS staff. The project staff also solicited strategies from other District community involvement personnel. Approximately 85-90 case listings from inside the District will be included in the final product.

   A representative from Glassboro State College conducted the nation-wide survey of community involvement strategies utilizing resources from the National School Public Relations Association. Approximately 85 case listings from the nation-wide search are to be included in the handbook.

3. The final production of the "Community Involvement Strategies Handbook" for principals will include 150-200 separate case studies. Each case will be detailed by reason/purpose, strategies and activities, results, recommendations and considerations, the time involved, and variations to the

technique or approach. The handbook will be indexed by case numbers and divided into four sections: (1) outreach, (2) bringing community members into the school, (3) extending school services, and (4) special communication tools. The different sections will be color coded for ease of reference and most cases will be self-contained on a single page.

4. Successful community involvement strategies used in the DISD and nation-wide have been compiled and formatted for the "Community Involvement Strategies Handbook". The handbook is scheduled for final publication and dissemination by August, 1977, in accordance with proposal specifications.

5. The budget for the CIS Project was $20,000. Budget monies were primarily allocated for payroll, general supplies, and printing. It is anticipated that the amount remaining for supplies and printing will be insufficient to cover the total costs of producing the product and disseminating it. District monies may be required to pay the remaining balance.

Additional Information:

T477-042-9-5 Evaluation of Title IV-C Community Involvement Strategies, 1977, Cordelia R. Alexander, Patricia A. Montgomery.

T377-056-3-1

Abstract

Evaluation of the Title III Program for Teacher Training Through the Development and Use of Teaching/Learning Packets for Basal Reading

Evaluators: Pamela J. Holden
C. LaVor Lym

Objectives of the Program: Teacher Training Through the Development and Use of Teaching/Learning Packets was a staff development program, during which participating teachers developed a teaching/learning packet specific to the baseline essential reading skills of the Dallas Independent School District (DISD). Instructional background to the essential reading skills was given to the teachers prior to packet construction. The packet contained at least one teaching aid for each of the essential reading skills for kindergarten through sixth grade. Participating teachers came from randomly selected schools at which there were no supplementary reading programs and at which the DISD Test of Essential Reading Skills was given. Principals of participating schools also received instructional background concerning the essential reading skills as they were expected to serve as instructional leaders in their schools.

The program's purpose was to improve the instructional skills of elementary language arts teachers regarding the baseline essential reading skills. The purpose of the program also included the development of the teaching/learning packet which was to be the vehicle for implementing the teachers' improved instructional skills.

Purpose of the Evaluation: The evaluation of the Program for Teacher Training Through the Development and Use of Teaching/Learning Packets was designed to determine if the teachers participating in the program improved their instructional skills, to determine if student achievement was impacted, and to monitor the program in general. Results were expected to assist in determining whether or not the program should be modified in any way, and whether or not it should be continued or expanded.

Sample: All elementary schools were invited to express their interest in participating in the program. From the schools which responded positively regarding participation, all those which had supplementary reading programs or had not given the Test of Essential Reading Skills were excluded. Teachers were assigned randomly by school, to the experimental and to the control group. There were 27 experimental teachers chosen and 32 control teachers chosen. One teacher dropped out of the program and was replaced by a teacher from another school, and one other teacher was unable to give the Test of Essential Reading Skills. Both teachers were excluded from the evaluation. Students of teachers in both experimental and control groups made up the student population.

Evaluation Design: Principals of all elementary schools were requested by the Department of Reading in October, 1976, to indicate the teachers in their schools who would be interested in or would benefit from participation in the Program for Teacher Training Through the Development and Use of Teaching/Learning Packets for Basal Reading. Those schools which had supplementary reading programs or had not given the Test of Essential Reading Skills were excluded from consideration for participation in the program. Teachers were selected by school and randomly assigned to the experimental or to the control group. Pretests and posttests were given to participating teachers at each instructional session. All participating teachers were given a questionnaire to obtain their opinions of the program. Teachers in both the experimental and the control groups were observed by reading specialists regarding the basal instructional steps and their utilization of enrichment activities. Teachers in both the experimental and control groups were requested to report data from the Test of Essential Reading skills for their students.

Evaluation Results:

1. What were the characteristics of the participating schools and their respective student and teacher populations?

   All schools had given the Test of Essential Reading Skills and had not implemented any supplementary reading programs. All students were in grades kindergarten through fifth. Teachers generally had had some previous background in reading, had been teaching for 10 years or more, and held a bachelor's degree.

2. What activities were undertaken to implement the program, and were they carried out according to the implementation plan?

   Two-day training sessions were held once monthly commencing in December and continuing through April. At the sessions held in December, January, and February, instruction was given the teachers in reading and instructional skills. In the sessions in March and April, and during a two-week workshop in June, packet construction was organized, begun and finally completed. Two one-half day training sessions were held in January with principals of the schools which participated in the program. During these sessions the principals were given instruction concerning the same skills in which their teachers had received instruction. These activities were conducted according to the implementation plan.

3. To what extent were the surrogates/parents involved in supportive activities?

   Project management invited surrogates/parents to attend the workshop in June, and also requested the teachers to encourage surrogates/parents to attend. However, only one parent accepted the invitation.

4. Did participating teachers attain adequate proficiency in the following areas as assessed by a written examination: (1) skill in recognizing phonics generalizations, (2) knowledge of diagnostic techniques, (3) skill in administering informal reading inventories, (4) skill in assigning students to appropriate reading groups, (5) skill in managing reading groups simultaneously, (6) skill in interpreting mastery tests?

   Teachers were pretested and posttested at the December and at the January training sessions. Posttest scores in both cases were statistically significantly higher than those on the respective pretests. Results are given in Table 1. It was concluded that the teachers did attain adequate proficiency in the skills listed above.

Table 1

Results of Pretests and Posttests for Teacher Training Sessions

	Mean Score		Standard Deviation			
Date	Pretest	Posttest	Pretest	Posttest	n	t
December, 1976	19.7	24.2	3.48	3.85	25	7.63[a]
January, 1977	18.2	25.6	3.91	2.31	25	11.04[a]

[a] Results were statistically significant at the .05 level.

5. Did participating teachers demonstrate adequate skill in employing instructional steps and enrichment activities?

   Both experimental and control teachers were observed at the close of the school year 1976-77. Reading specialists conducted the observations concerning the employment of instructional steps and enrichment activities. Observations were obtained for 76% of the teachers who participated in the program, and for 78% of the control group teachers. The observations of the reading specialists indicated that both groups of teachers were employing the basal instructional steps and providing enrichment activities for their students. The observations of the reading specialists indicated no difference between the experimental teachers and the control teachers. The basal instructional steps consist of: (1) Preparing for Reading, (2) Reading and Discussing, (3) Teaching Reading Skills, and (4) Meeting Individual Needs. Teachers were reported to have provided various enrichment activities such as: creative writing, dramatics, puppet shows, tutoring, and several others. Therefore, teachers did demonstrate adequate skill in employing instructional steps and enrichment activities.

6. What were the opinions of teachers regarding training and the development of the teaching/learning packets?

At the end of the June workshop, teachers who had participated in the program were given a questionnaire concerning their opinions of the program. The results of the questionnaire are summarized in Table 2.

Table 2

Summarization of Teacher Opinions

	Answers					
	Yes		No		No Response	
Question	n	%	n	%	n	%
Did the program improve your teaching skills?	21	84	0	0	4	16
Did you learn more about reading?	22	88	1	4	2	8
Did you have enough time for packet construction?	19	76	6	24	0	0
Were there any unnecessary subjects covered in training?	6	24	18	72	1	4
Were there any subjects not covered in training that should have been?	4	16	18	72	3	12

All of the teachers felt that the program was worthwhile. Sixty percent of the teachers made positive comments about the program, that it was excellent, beneficial, useful, valuable, helpful, and great; 8% of the teachers felt that the program provided good ideas; 8% also felt that it was confusing and unorganized at the end; 4% stated that the program provided understanding of the K-6 skills necessary to master to be a good reader, that it was well-organized, that it was too much work, and that the program was interesting and pleasurable. Eight percent of the teachers made no comment.

7. Did the students of participating teachers who implemented the program demonstrate higher attainment of the essential reading skills than a group of comparison students?

Test of Essential Reading Skills (TERS) data were collected for the students of the teachers who participated in the program and the students of the teachers assigned to the control group. Across levels and objectives of the TERS, there were no overall differences in student performance between students of teachers who implemented the program, and students of teachers in the control group. However, this could be expected due to the nature of the program and due to the nature of the data. The main thrust of the program during this year was to provide the teachers with background in reading and instructional skills, to enable them to make full use of the packets next year. The impact on the students then could be expected to be small since the teachers would not be able to fully implement the skills taught by the program until the packet was used in the classroom. Teachers were not required to record mastery of all skills on one level of the Test of Essential Reading Skills (TERS) before progressing the students through to another level. Therefore, a student could have been pretested on one level of the TERS and posttested on a higher level without final mastery of the skills on the lower level being recorded. The total number of students mastering objectives on any one level was therefore, not available. Conclusions were based on those students for whom posttest mastery on an objective, on a level of the TERS, was recorded.

Additional Information:

T377-056-9-1 Evaluation of the Title III Program for Teacher Training Through the Development and Use of Teaching/Learning Packets for Basal Reading, 1977, Pamela J. Holden, C. LaVor Lym.

76-884 Evaluation of the 1975-76 ESEA Title III Staff Development Through Development and Use of Teaching/Learning Packets for Basal Reading (Tech. Report), 1976, Allen W. Scott.

75-600 Evaluation of an ESEA Title III Training Through Development and Use of Teaching/Learning Packets for Basal Reading in Grades 2-6, 1975, Allen W. Scott, 16 pages.

T477-073-3-5

Abstract

Evaluation of the Performance Level Administrator Training for Optimum Resource Management (Title IV-C)

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Objectives of the Project: The purpose of the Performance Level Administrator Training for Optimum Resource Management (PLATFORM) Project is to develop the planning and evaluation capabilities of school administrators so that they may effectively allocate available resources to meet the educational needs of their students. The major goal of the project is to develop planning/management training modules. This development entails the researching and writing of materials, pilot testing, revision and field-testing. The designated areas of instruction are: Planning, Evaluation, Management and Educational Renewal. Another goal of the project is to train pilot groups of DISD principals in aspects of the planning/management process.

Purpose of the Evaluation: This evaluation provides a summary of Project Staff progress, a presentation of evaluation results from pilot and field testing of the modules, and a discussion of problems associated with the Project.

Staff Progress: With respect to the development of planning modules, the first of the modules was completed 11-15-76 and the third and final module was completed on 12-8-76. Although Project timelines called for completion by 11-5-76, the actual completion dates were in accord with the deadlines prescribed by the pilot testing schedule. The completed modules contained all the elements called for by the plan, i.e., a suggested format for instruction, module objectives, the textual material, a self-review, a pretest and a posttest. The modules were entitled "Overview of Planning," "An Educational Planning Model" and "Wrap Up."

The Planning modules were pilot tested by a graduate class in education at an extension site of Stephen F. Austin College. The testing was completed on 12-15-76 (the instructor found it necessary to extend training by one session). Because of this delay and the intervening holidays, the final set of tested materials was not received by Project staff until 1-3-77. The plan projected completion of pilot testing of the planning modules by 12-8-76.

The first revision of the Planning modules was completed by Project Staff using the results of the pilot-testing. These results included pretest and posttest scores, responses to attitudinal evaluation questions, and observation of classroom instruction. The revision entailed a reworking of test items and textual materials. A fourth module, "Alternative Planning Models," was developed and added to the instructional unit in Planning during this revision period. Project staff also began work on a slide-tape presentation that is to be incorporated in the final form of the instructional package. Revisions exhibited careful and considerable thought.

Project timelines called for completion of revision by 2-15-77. The revised unit was completed in early April. The delay perhaps may be accounted for by the extra work taken on during this period (i.e., adding a fourth module and working on the slide-tape presentation) and the delayed receipt of pilot test results. Despite the delay, completion was in advance of the deadlines set by the field testing schedule.

The Planning modules were field tested at the DISD Management Academy by a group of DISD and private school administrators. The modules were presented April 6 and 25 in two four-hour sessions.

Evaluation modules were to have been completed by 1-1-77. Although delayed, they were completed in time for field testing at the Management Academy. The same instructor who assisted pilot testing the Planning modules at the Stephen F. Austin extension site has agreed to conduct additional testing in the fall.

Three of the five Evaluation modules were completed by late February. The remaining modules were completed by mid-March, in advance of their scheduled presentation at the DISD Management Academy. Evaluation modules contained all the elements prescribed by the Plan. The modules were entitled "General Introduction to Evaluation," "Context Evaluation," "Input Evaluation," "Process and Product Evaluation" and "Specific Tools and Processes in Process and Product Evaluation."

The Evaluation modules were offered to a group of DISD and private school administrators at the DISD Management Academy. Instruction was given on March 21 and 28 in two two-hour sessions.

With respect to development of the remaining two sets of modules, Management and Process of Educational Renewal, some of the information to be incorporated in the textual materials was collected in the early stages of the Project. The desired format was also finalized. (The original Management Plan called for an almost simultaneous production of modules whereas the revised plan staggers production, hence the early work in this area.) The Management instructional unit is to be the largest of all the PLATFORM units. While the others consist of one set of modules, the Management unit will contain four sets of modules. The first of these sets is very near completion. Development of the Educational Renewal modules is in the initial stages of researching materials. Responsibility for this set of modules changed as a result of a recent resignation in the department. Management and Renewal modules were to have been completed by July 1, 1977 but are now slated for completion by September 1, 1977.

Funded as a continuation project for the period July 1, 1977 to June 30, 1978, PLATFORM activities are to include field testing of Management and Renewal modules, final revision of all modules, providing assistance to Management Academy and the dissemination of the modules throughout the state.

Evaluation Results: As mentioned earlier, Planning modules were pilot tested at an extension site of Stephen F. Austin College. There were twenty students, 19 who worked as instructional personnel in local school districts and one who was a full-time student. Results of the pilot test are discussed in more detail in the interim report (No. T477-072-51-5). Four tables from that report are presented in Appendices 1-4.

To summarize, pilot test participants: (a) exhibited a favorable attitude toward a planning/management approach (Appendix 1); (b) were somewhat negative about the relevance of the modules, the difficulty of tests and mastery requirements but slightly positive about the general quality of the modules (Appendix 2); (c) tended to rank, from a list of skills associated with each of the four units of PLATFORM, Evaluation skills as most important and as their strongest skill and Planning skills as least import and weakest among their skills (Appendix 3); (d) tended to rank Educational Renewal skills high in importance but low in perceived strength, thus expressing a need for instruction in this area (Appendix 3).

None of the pilot testing participants achieved an arbitrary mastery level of 80% over the set of modules, as reflected by performance on the posttest. (Percent achieving mastery by mastery indicator is presented in Appendix 4.) The pretest mean score was 39.5% or 8.7 of 22 items correct. The posttest mean score was 52.5% or 10.5 of 20 items correct. The apparent improvement was not necessarily due to instruction since ten of the twenty items on the posttest were also on the pretest.

Eleven DISD school administrators and two private school administrators participated in the testing of the Planning and Evaluation modules. Eleven enrolled in the Evaluation modules, two of whom missed the first session. Seven enrolled in the Planning modules. Of these, five had also participated in the Evaluation modules. Participants were taking PLATFORM modules as elective courses of instruction at the DISD Management Academy.* Controls were 25 DISD school administrators participating in a Management Academy seminar on dealing with unacceptable behavior -- a topic relatively unrelated to PLATFORM. The seminar, like each of the PLATFORM units, met in two sessions.

Participants were asked to respond to a survey administered at the beginning and at the end of each instructional unit in PLATFORM (i.e., the Planning and Evaluation units). In order to detect the presence of any inherent differences between participants and controls, a comparison was made between participant's responses to the survey at their first entry into the program and responses of controls to the same survey.

Controls and participants scored similarly on the attitudinal portion of the initial survey, which was designed to assess attitudes towards planning/management. The across-item means were 4.16 for controls and 4.22 for participants, where 1 = least favorable and 5 = most favorable to a planning/management approach. A t-test for independent groups was conducted to test this difference. The difference between these attitudinal means was not significant at the .05 level ($t = .3942$, $p < .70$). Asked to indicate how many years teaching and how many years administrative experience they had, participants had means of 14.46 years and 12.09 years, respectively. Similarly, controls had means of 14.42 years teaching experience and 9.32 years administrative experience.

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*DISD school administrators had a general requirement to enroll in 12 hours of instruction at the Management Academy.

Using the same statistical test as above, the differences in means between participants and controls did not prove significant for either years teaching experience ($t = .0126$, $p < .99$) or years administrative experience ($t = 1.083$, $p < .30$).

Some differences on other measures were noted. Sixty-percent of participants indicated that they had prior experience in planning/management vs. 29% for controls. Using the Fisher Exact Probability method, the probability of such a distribution of responses approaches a significance level of .05 ($p < .08$). Fifty-five percent of participants classified the socioeconomic status of their school community as "lower" vs. 24% for controls. The same method yields a similar result in this case ($p < .07$).

Of the measures examined, only the difference between controls and participants with respect to prior experience in planning/management may be thought to influence achievement in the modules and thus vitiate the rigor of the design.* Some doubt may still remain since the nature or extent of their "experience" is not known. The difference observed between participants and controls with respect to the perceived socioeconomic status of their school is not so readily supposed to relate to achievement.

Testing the tightness of the experiment was not the only concern here. Project Management might also find occassion to use the information presented above when considering the type of audience PLATFORM might attract.

The items and item means for each administration of the attitudinal portion of the survey are presented in Table 1. Results are tabulated for each of the groups taking the survey (i.e., Evaluation, Planning and Control groups). Participants responded slightly more positively to the survey after training than they did before. The across item means for the Evaluation group were 4.22 at the pretest and 4.43 at the posttest. Similarly, for the Planning group the means were 4.26 at the pretest and 4.33 at the posttest. A t-test for dependent groups was calculated for each of the comparisons. The differences for the evaluation group and the planning group were not significant ($t = .8606$, $p < .50$; $t = .4629$, $p < .70$, respectively). Furthermore, a t-test for independent groups performed to test the difference in means between controls (mean = 4.16) and participants who had completed their first unit in PLATFORM (mean = 4.12) revealed no significant difference ($t = .1729$, $p < .90$).

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*The design, used later in this analysis, may be schematized as follows:

$$\begin{array}{lll} 0_1 & X & 0_2 \\ & & 0_2 \end{array}$$

, where "X" represents the treatment (PLATFORM), "0_1" represents participant's performance on the pretest and the "0_2"s represent performance on the posttest by participants and controls.

Table 1

ATTITUDES TOWARD PLANNING/MANAGEMENT

Questionnaire Items	Evaluation Field Testing				Planning Field Testing				Controls	
	Pretest Mean* (n = 9)	S.D.	Posttest Mean (n = 9)	S.D.	Pretest Mean (n = 7)	S.D.	Posttest Mean (n = 4)	S.D.	Mean (n = 25)	S.D.
1. There is almost no way to reduce the resistance and inefficient use of resources that comes with changes in the educational process.	3.89	.782	4.44	.527	4.00	.577	4.25	.957	3.64	.907
2. It is essential for good school management to know the worth of programs, plans, objectives, etc.	4.67	.500	4.78	.441	5.00	.000	5.00	.000	4.64	.490
3. A systematic approach to decision making is necessary for effective management.	4.67	.500	4.38	1.061	4.57	.535	5.00	.000	4.44	.712
4. Given the problems of day to day operations, I don't feel that a principal could find the time to systematically plan.	4.22	.972	4.22	1.302	4.29	1.113	4.75	.500	3.48	1.159
5. I don't see how planning could be useful unless somehow the results of our planning brought added resources to our school.	4.00	.866	4.25	1.035	3.43	1.397	3.25	1.500	3.32	1.145
6. Planning cannot anticipate all problems, but it is usually better to have a planned response to a problem than a reactive, stopgap response to a problem.	4.55	.527	4.33	.500	4.29	.488	4.50	.577	4.60	.500
7. Principals and faculty should, to a large extent, be held accountable for the educational outcomes of their students.	3.89	1.167	4.38	.518	3.71	.488	3.50	1.00	4.12	.881
8. If a principal has common sense he doesn't have to worry about planning.	4.33	.500	4.67	.500	4.43	.535	3.75	1.893	4.52	.510

*Participants were asked to indicate if they strongly disagreed, disagreed, were neutral, agreed or strongly agreed with each of the statements presented on the left hand side of this table. Since items 1, 4, 5, 8 and 9 are negatively oriented, responses to these items were reversed in the computation of item means. Thus, in each case, the higher the mean the more favorable the response. The range of possible response values is 1 (strongly disagree) to 5 (strongly agree).

Table 1 (Cont'd)

ATTITUDES TOWARD PLANNING/MANAGEMENT

Questionnaire Items	Evaluation Field Testing				Planning Field Testing				Controls	
	Pretest Mean (n = 9)	S.D.	Posttest Mean (n = 9)	S.D.	Pretest Mean (n = 7)	S.D.	Posttest Mean (n = 4)	S.D.	Mean (n = 25)	S.D.
9. As long as major tasks or projects are completed and produce some kind of useful result it is not important for the principal to know how it was done.	4.11	.333	4.56	.527	4.43	.535	4.50	.577	4.40	.500
10. Although the principal is ultimately responsible for effective resource management, at least at the school level, he should involve faculty in decisions concerning resource allocation.	3.89	1.167	4.56	.527	4.43	.535	4.75	.500	4.48	.510
ACROSS ITEMS**	4.22	.396	4.46	.334	4.26	.244	4.33	.465	4.16	.368

** Persons who answered less than 60% of the items were excluded from calculation.

Opinions about several aspects of the Planning modules and the Evaluation modules were solicited from participants enrolled in each of the units and are summarized in Tables 2 and 3, respectively. Participants generally rated difficulty of tests as "moderately difficult." Modules were generally rated "very useful" with respect to their potential for use on the job. The instructional quality of the modules was generally rated "very high" by Evaluation participants and "high" by Planning participants. Asked to consider their entering level of knowledge and aptitude for the material, participants were asked to rate the difficulty of the mastery level indicators (i.e., arbitrary requirements for success) for each of the modules. Requirements were generally rated "moderately difficult" by Evaluation participants and "about right" by Planning participants.

Opinions about the same aspects of the modules were solicited from pilot test participants taking the Planning unit (see Appendix 2). Compared to the response of the pilot test participant's the response of the field test participants was considerably more favorable with respect to all of the categories (i.e., difficulty of tests, difficulty of mastery indicators, quality of modules and meaningfulness of modules). The more favorable response might be attributable to the revision of the modules that occurred between pilot and field test and/or the difference between the pilot and field test groups. Since the modules were designed specifically for administrators, administrators might be more receptive to the modules than would graduate students in education.

Participants were asked to rate a list of four skills associated with each of the four instructional units in PLATFORM. Each of the skills were rated with respect to their importance in the performance of the participant's job and with respect to the participant's perceived strength in that area. These ratings were made before and after each unit of PLATFORM. Items and item means for the Planning and Evaluation groups are presented in Tables 4 and 5, respectively. The difference between importance and strength ratings are also presented. Positive discrepancies (i.e., importance ratings greater than strength ratings) imply a need for training.

PLATFORM participants generally rated the list of skills high in importance but relatively lower with respect to their perceived strength, thus implying a need for such training. For evaluation participants, the pretest across-item mean "importance" rating was 3.50, where a 1 represented "not important" and a 4 represented "very important." The mean rating for "perceived strength" was 2.75, where a 1 represented "not strong" and a 4 represented "very strong." The results of a dependent groups t-test proved this difference in means to be significant ($t = 2.5694$, $p < .05$). The posttest means for "importance" and "perceived strength" were 3.97 and 2.83, respectively. This difference too was significant ($t = 6.6472$, $p < .01$). The posttest means of the Planning group were 4.00 for "importance" and 3.25 for "perceived strength." The same statistical test yielded significance ($t = 5.1867$, $p < .05$). The difference in the pretest means of the Planning group ("importance" = 3.54 and "perceived strength" = 3.57) did not prove significant ($t = .1355$, $p < .90$).

Table 2

Attitudes Toward Tests and Modules of Planning Instruction

	Mean	Median	Stan. Dev.	n
Difficulty of Tests				
(1 = very difficult, 5 = very easy)				
Pretest Module 1	2.43	2.20	.787	7
Pretest Module 2	2.33	2.17	1.033	6
Pretest Module 3	3.00	3.00	1.000	3
Posttest (Modules 1-2) *	2.75	2.50	.957	4
Quality of Modules				
(1 - very low, 5 = very high quality)				
Module 1	3.86	3.92	.378	7
Module 2	4.00	4.00	0.000	3
Module 3	3.75	3.83	.500	4
Meaningfulness of Modules				
(1 = meaningless, 5 = very meaningful)				
Module 1	4.71	4.80	.488	7
Module 2	4.67	4.75	.577	3
Module 3	4.75	4.83	.500	4
Difficulty of Mastery Level Indicators				
(1 = much too difficult, 5 = much too easy)				
Module 1	3.14	3.13	.690	7
Module 2	3.33	3.25	.577	3
Module 3	3.25	3.50	.957	4

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*Questions relating to module 3 ("Wrap Up") were not present on the posttest. Participants were encouraged to work through module 4 ("Alternative Planning Modules") on their own time but the module was not formally presented.

Table 3

Attitudes Toward Tests and Modules of Evaluation Instruction

	Mean	Median	Stan. Dev.	n
Difficulty of Tests				
(1 = very difficult, 5 = very easy)				
Pretest Module 1	2.38	2.25	.916	8
Pretest Module 5	NA*	NA	NA	NA
Posttest (Modules 1,5)°	2.00	2.00	.535	8
Quality of Modules				
(1 - very low, 5 = very high)				
Module 1	4.43	4.38	.535	7
Module 5	4.38	4.50	.744	8
Meaningfulness of Modules				
(1 = meaningless, 5 = very meaningful)				
Module 1	4.57	4.80	.787	7
Module 5	4.38	4.70	1.061	8
Difficulty of Mastery Level Indicators				
(1 = much too difficult, 5 = much too easy)				
Module 1	2.57	2.63	.535	7
Module 5	2.71	2.80	.488	7

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*Not applicable - no pretest was given for Module 5.

°Content from modules 2-4 ("Context", "Input" and "Process and Product," respectively) was only briefly presented by the instructor. No measures were solicited concerning these modules.

Table 4

Ratings of PLATFORM Skills
by Planning Participants

Item		Importance			Perceived Strength			Discrepancy*		
		Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n
1. Ability to systematically make decisions for future actions and to assign resources for those actions in an optimal manner.	Before Instruction:	3.57	.535	7	3.57	.535	7	0.00	0.000	7
	After Instruction:	3.75	.500	4	3.50	.577	4	.250	.500	4
2. Ability to determine the worth of a program, objective, plan, etc. by the use of appropriate techniques of measurement and analysis.	Before Instruction:	3.43	.787	7	3.57	.535	7	-.143	.900	7
	After Instruction:	4.00	0.000	3	3.00	0.000	3	1.000	0.000	3
3. Ability to effectively manage resources; co-ordinate various tasks with respect to time and resource constraints.	Before Instruction:	3.71	.488	7	3.71	.488	7	0.00	.577	7
	After Instruction:	4.00	0.000	3	3.00	0.000	3	1.00	0.000	3
4. Ability to effect positive changes in the educational processes at your school with minimum of resistance and optimal use of resources.	Before Instruction:	3.43	.787	7	3.43	.535	7	0.00	1.000	7
	After Instruction:	4.00	0.000	3	3.33	.577	3	.67	.577	3
	Before Instruction (across items**):	3.54	.567	7	3.57	.278	7	- .036	.585	7
	After Instruction (across items):	4.00	0.000	3	3.25	.250	3	.750	.250	3

*Discrepancy = importance rating - perceived strength rating. Thus, the higher the discrepancy the greater the expressed need. Response values could range from 1 to 4, where 1 represented "not important" and 4 represented "very important." Similarly, 1 represented "not strong" and 4 represented "very strong."

**Persons who answered less than 60% of the items were excluded from calculation.

Table 5

Ratings of PLATFORM Skills
by Evaluation Participants

Item		Importance			Perceived Strength			Discrepancy*		
		Mean	S.D.	n	Mean	S.D.	n	Mean	S.D.	n
1. Ability to systematically make decisions for future actions and to assign resources for those actions in an optimal manner.	Before Instruction:	3.50	1.069	8	2.67	1.000	9	.63	1.061	8
	After Instruction:	3.89	.333	9	2.89	.782	9	1.00	.707	9
2. Ability to determine the worth of a program, objective, plan, etc. by the use of appropriate techniques of measurement and analysis.	Before Instruction:	3.50	1.069	8	2.33	.707	9	1.00	.926	8
	After Instruction:	4.00	0.000	9	2.78	.667	9	1.22	.667	9
3. Ability to effectively manager resources; co-ordinate various tasks with respect to time and resource constraints.	Before Instruction:	3.50	1.069	8	3.00	.707	9	.38	1.188	8
	After Instruction:	4.00	0.000	9	2.78	.667	9	1.22	.667	9
4. Ability to effect positive changes in the educational processes at your school with minimum of resistance and optimal use of resources.	Before Instruction:	3.50	1.069	8	3.00	.707	9	.38	1.302	8
	After Instruction:	4.00	0.000	9	2.89	.601	9	1.11	.601	9
	Before Instruction (across items**):	3.50	1.026	8	2.75	.685	9	.59	1.035	8
	After Instruction (across items):	3.97	.083	9	2.83	.530	9	1.14	.517	9

*Discrepancy = importance rating - perceived strength rating. Thus, the higher the discrepancy the greater the expressed need. Response values could range from 1 to 4, where a 1 represented "not important" and a 4 represented "very important." Similarly, a 1 represented "not strong" and a 4 represented "very strong."

**Persons who answered less than 60% of the items were excluded from calculation.

Mean discrepancies were generally higher (i.e., a greater need) after training than they were before training. Perhaps this indicates that after being impressed by the material in the unit, the participant's estimation of the importance of planning/management skills increased, or, alternatively, the instruction pointed out his inadequacies in the area and his estimation of his strength decreased. Another possibility is that those participants who dropped out of the unit after the pretest had a low estimate of their need and thus, in their absence, the overall need, or mean discrepancy, appeared to increase at the time of the posttest. Of course, all of these processes could have been in operation. Comparing only those participants who began and finished the unit controls for the last of these considerations. By this method, the average across-item mean discrepancy for the Planning group was .160 at the pretest and .750 at the posttest, a net increase of .590. A dependent groups t-test yielded no significant difference between these means ($t = 2.6460$, $p < .20$). The average across-item mean discrepancy for the Evaluation group was .535 at the pretest and 1.25 at the posttest, a net increase of .715. There was no significant difference between these means ($t = 1.5945$, $p < .20$).

Skills associated with Management and Evaluation modules showed the greatest discrepancy among the posttest measures with mean discrepancies of 1.00 for the Planning group and 1.22 for the Evaluation group.

A comparison was made between the cognitive pretest and posttest scores in order to detect any significant achievement gains that accrued from instruction in the modules. Since there was no pretest for module 5 of the Evaluation unit, only the scores for the module 1 pretest and the scores from the identical set of items on the posttest were compared. The mean pretest score was 4.5 items correct out of a possible score of 10 (45.0%). The mean posttest score was 9.16 (91.6%). A dependent groups t-test yielded significance ($t = 6.6130$, $p < .01$), indicating a reliable difference between the two mean scores. The planning posttest contained no items relevant to module 3 so posttest scores were compared to pretest scores of modules 1 and 2. Composite pretest scores were obtained by adding together the scores from the module 1 pretest and the module 2 pretest. The mean of the composite pretest scores was 11.25 items correct out of a possible 23 (48.9%). The posttest mean was 13.75 (59.8%). Using the same statistical test as above, the means did not prove to be significantly different ($t = .9522$, $p < .50$). Results should be viewed with some caution since, in both instances, pre and posttest were identical tests, thus, the prior exposure from the pretest may have increased achievement on the posttest.

Another comparison was made between the cognitive posttest scores of PLATFORM participants and cognitive test scores of controls. The tests were given to controls from a stack that contained two forms of the test. The forms were stacked alternately, thus, 12 of the controls received form 1 and 13 received form 2. The tests were of approximately equal length, 22 and 23 items. Form 1 contained 5 items from the Planning posttest and 5 items from the Evaluation posttest. The remaining 12 items were from the module 3 pretest of the Planning unit and were not considered in the comparison. Form 2 contained the remaining 18 items of the Planning posttest and 5 more items from the Evaluation posttest. Each portion of the control's test was scored so as to give each an Evaluation score and a Planning score. Evaluation scores from the first group were ranked and paired with a similar ranking from the scores of the second group. The same procedure was applied with the Planning scores. In both instances, the highest scores from the group receiving form 2 (the group that had 13 people) were discarded. Thus, 12 composite Evaluation test scores and 12 composite Planning test scores were used to compare to the scores of the PLATFORM participants.

The mean composite score of the controls who "took" the Planning posttest was 12.50 correct of a possible 23 (54.3%). Recall that the mean score of participants was 13.75 (59.8%). An independent groups t-test did not prove a significant difference between these means ($t = .6219$, $p < .60$). The mean composite score of the controls who "took" the Evaluation posttest was 3.50 of a possible 10 (35.0%). The mean score of Evaluation participants was 8.67 (86.7%). Using the same test as above, this difference in means did prove significant ($t = 6.1555$, $p < .01$).

Achievement on the posttests was also examined in light of the mastery indicators for each of the PLATFORM units. An arbitrary mastery level of 80% was set. This meant that at least 80% of the mastery indicators tested by the posttest would have to be satisfied in order to achieve mastery. If, for example, a mastery indicator had three related items on the posttest than all three of the items would have to be answered correctly for the mastery indicator to be satisfied. The Planning unit had 22 mastery indicators that had related items on the posttest -- one item for each indicator. One of the items on the Planning posttest had no related indicator. The Evaluation unit had 12 mastery indicators that had related items on the posttest. The indicators had as many as seven related items or as few as one. Four of the items on the posttest had no related indicator.

Of the seven administrators who began the Planning unit only four (57%) took the posttest. Not one of these four achieved the arbitrary mastery level of 80%. Of the eleven administrators who participated in the Evaluation training only nine (82%) took the posttest. Four of these nine (44%) achieved a mastery level of 80%.

An examination of mastery by module was also made. Six of the nine (67%) Evaluation participants taking the posttest achieved a mastery level of 80% for module 1. Each scored 100% or five out of five possible indicators. None of the participants achieved the mastery level for module 5. There was a total of seven indicators for this module. One of the four (25%) Planning participants taking the posttest achieved a mastery level of 80% for the nine indicators of module 1. None of the participants achieved a mastery level of 80% for module 2. There was a total of 13 indicators for module 2.

Tables 6 and 7 present the list of mastery indicators and the percent of participants satisfying each indicator for the Planning unit and the Evaluation unit, respectively.

Table 6

Percent Achieving Mastery by Mastery Indicator for Planning Modules

Mastery Indicators°	Module*	No. of Items	Percent Achieving Mastery** (n = 4)
From list of alternatives:			
1. select common need among organizations that require structured planning.	1	1	100.0
2. select primary characteristics of tactical planning.	1	1	75.0
3. select activities related to tactical planning.	1	1	75.0
4. select factors to be considered when planning activities for a particular situation.	1	1	50.0
5. select procedures related to strategic planning.	1	1	50.0
6. identify four characteristics of planning process.	1	1	75.0
7. select characteristics of effective planning.	1	1	50.0
8. select realistic outcome of planning.	1	1	25.0
9. select benefits of effective planning.	1	1	25.0
10. identify function of initial meeting of planning management team.	2	1	25.0
11. recognize role of management team leader (true-false item).	2	1	0.0
12. recognize composition of planning team (true-false item).	2	1	75.0
13. select information to be considered assessing needs of school.	2	1	75.0

° Mastery indicators have been paraphrased. Only those mastery indicators that had related items on the posttest are listed in this table. One item of the posttest had no specifically related mastery indicator.

* Module 1 = "Overview of Planning", Module 2 = "An Educational Planning Model." Questions relating to Module 3 ("Wrap-Up") were not present on the posttest.

**The percent of participants correctly answering the related item on the posttest.

Table 6 (Cont'd)

Percent Achieving Mastery by Mastery Indicator
for Planning Modules

Mastery Indicators°	Module*	No. of Items	Percent Achieving Mastery** (n = 4)
From list of alternatives:			
14. identify techniques for conducting a subjective needs assessment.	2	1	0.0
15. select a concensus technique for group decision-making.	2	1	50.0
16. recognize use of objective and subjective data in needs assessment (true-false item).	2	1	100.0
17. select techniques for identifying contributing factors to need.	2	1	50.0
18. recognize use of standardized test results as objective needs assessment data (true-false item).	2	1	100.0
19. recognize need for determing restraints to course of action (true-false item).	2	1	100.0
20. identify decision-making phase of planning process.	2	1	25.0
21. identify components of CIPP Evaluation Model.	2	1	50.0
22. recognize nature of evaluation procedure in the planning process (true-false item).	2	1	75.0

Table 7

Percent Achieving Mastery by Mastery Indicator for Evaluation Modules

Mastery Indicators°	Module*	No. of Items	Percent Achieving Mastery** (n = 9)
From a list of alternatives:			
1. select two forces which work to promote evaluation.	1	1	88.9
2. select three forces which hinder use of evaluation information	1	1	88.9
3. select three benefits which result from evaluation.	1	2	66.7
4. classify evaluation questions as the Context, Input, Process or Product type.	1	4	66.7
5. recognize relative importance of evaluation questions and the evaluation design (true-false item).	1	1	88.9
6. select a definition for some key terms in sampling.	5	6	33.3
7. select definitions of internal and external validity.	5	2	11.1
8. match advantages and disadvantages with the related data collection technique.	5	7	44.4
9. select a definition of reliability and validity.	5	2	66.7
10. select example which corresponds to terms norm-referenced and criterion referenced.	5	2	55.6
11. select most important consideration in developing instrumentation.	5	1	88.9
12. identify powerful and weak experimental designs.	5	2	00.0

° Mastery indicators have been paraphrased. Only those master indicators that had related items on the posttest are listed in this table. Four items of the posttest had no specifically related mastery indicator.

* Module 1 = "Introduction to Evaluation," Module 5 = "Specific Tools, Skills and Considerations for Conducting Process and Product Evaluations."

** The Percent of participants correctly answering the related item(s) on the posttest.

Discussion: To summarize, substantial and significant achievement gains were noted for those school administrators taking the Evaluation unit of PLATFORM. Achievement gains were less for those enrolled in the Planning unit. Attitudes of participants were generally very favorable towards a planning/management approach and slightly more favorable after training, although no significant difference was found. (When considering the lack of significance for these and many of the other tests, it should be noted that sample size was relatively small and hence the likelihood of not discovering true differences when, in fact, there were such differences, is relatively high.)

That there is a need for such training in the District is well documented in the Project proposal. Participants also indicated a need for the training. Among the course offerings at Management Academy this last spring, only the PLATFORM units were directly related to the concepts of accountability and planning/management. The only other planning/management thrust of the District is the Campus Level Planning Project, now ending its second year.

As an initial attempt, the Project was relatively successful. There were problems in adhering to timelines and these should be noted when considering what would be a realistic amount of output to expect from a curriculum-writing oriented project. Also there should be an increased effort to make sure that PLATFORM materials reach a larger audience than they did this year.

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Appendix 1

Attitude Toward Planning/Management

Questionnaire Item°	% Distribution Before Training*					% Distribution After Training					Pretest Mean**	Posttest Mean
	SD	D	N	A	SA	SD	D	N	A	SA		
1. There is almost no way to reduce the resistance and inefficiency that comes with changes in education.	15	60	5	10	10	0	75	5	20	0	3.60	3.55
2. It is essential for good school management to know the worth of programs, plans, objectives, etc.	0	0	0	30	70	0	0	0	45	55	4.70	4.55
3. A systematic approach to decision making is necessary for effective management.	0	0	0	50	50	0	0	0	70	30	4.50	4.30
4. Given the problems of day to day operations, I don't feel that a principal could find the time to plan.	15	50	15	20	0	15	40	30	5	10	3.60	3.45
5. Planning could not be useful unless the results of planning brought added resources to the school.	10	50	5	30	5	5	70	5	20	0	3.30	3.60
6. A planned response to a problem is usually better than a reactive response to a problem.	0	0	0	70	30	0	0	0	75	25	4.30	4.25
7. Principals and faculty should be accountable for the educational outcomes of their students.	5	10	20	65	0	0	15	25	50	10	3.45	3.55
8. If a principal has common sense he doesn't have to worry about planning.	45	55	0	0	0	35	60	5	0	0	4.45	4.30
9. If major tasks or projects are completed and produce a useful result it is not important for the principal to know how it was done.	15	55	15	15	0	25	45	20	10	0	3.70	3.85
10. Although the principal is responsible for effective resource management he should involve faculty in decisions concerning resource allocation.	0	0	0	60	40	0	5	0	75	20	4.40	4.10
										GRAND MEAN	4.00	3.95

°Items are shortened or paraphrased for format purposes.

*The alternatives: SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree

**Scores for items 1, 4, 5, 8 and 9 have been reversed so that in each case the higher the score the more favorable the attitude. A score of 5 would be most favorable. A score of 1 least favorable.

Appendix 2

Attitudes Toward Tests and Modules

Difficulty of Tests

(1=very difficult, 5=very easy)

	Mean	Median	Stan. Dev.
Pretest Module 1	1.78	1.82	.658
Pretest Module 2	1.42	1.36	.510
Pretest Module 3	1.58	1.36	.836
Posttest (Modules 1-3)	1.75	1.72	.716

Quality of Modules

(1=very low, 5=very high quality)

Module 1	3.37	3.24	.597
Module 2	3.58	3.36	.769
Module 3	3.40	3.27	.598

Meaningfulness of Modules

(1=meaningless, 5=very meaningful)

Module 1	2.00	2.00	.817
Module 2	2.26	2.31	.733
Module 3	2.32	2.33	.671

Difficulty of Mastery Level Indicators

(1=much too difficult, 5=much too easy)

Module 1	2.00*	2.00*	.666*
Module 2	2.62	2.72	.850
Module 3	2.15	2.14	.671

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*Subjects did not know what the Mastery Level Indicators for Module 1 were, hence their responses to this item are essentially meaningless.

Appendix 3

Mean Rankings of Platform Skills

	Mean Ranking with respect to relevance for respondent				Mean Ranking with respect to respondent's perceived strength			
RANK ORDERED	Skill	Pretest Mean Rank	Skill	Posttest Mean Rank	Skill	Pretest Mean Rank	Skill	Posttest Mean Rank
FIRST	B**	2.06*	B	2.25	B	2.26	B	2.05
SECOND	D	2.28	D	2.30	C	2.32	C	2.55
THIRD	C	2.56	C	2.65	A	2.42	A	2.65
FOURTH	A	3.11	A	2.80	D	3.00	D	2.75

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* Mean ranking is the mean of the ordinal rankings of each skill

** Participants were asked to rank the following list of skills with respect to relevance to them and their perceived strength in that area: A=Planning, B=Evaluation, C=Management and D=Process of Educational Renewal

A. Ability to systematically make decisions for future actions and to assign resources for those actions in an optimal manner.

B. Ability to determine the worth of a program, objective, plan, etc., by the use of appropriate techniques of measurement and analysis.

C. Ability to effectively manage resources; co-ordinate various tasks with respect to time and resource constraints.

D. Ability to effect positive changes in the educational processes at your school with minimum of resistance and optimal use of resources.

Appendix 4

Percent Achieving Mastery by Mastery Indicators

Mastery Indicators[o]	Module*	No. of Alternatives	Percent** Achieving Mastery
From list of alternatives:			
1. select dimension(s) of a plan.	1	5	50.0
2. identify characteristic(s) of effective planning.	1	5	75.0
3. classify planning activity with respect to type of planning approach.	1	4	10.0
4. identify planning for "control".	1	5	45.0
5. identify planning for "implementation".	1	5	30.0
6. choose correct "purpose" of plan.	1	5	70.0
7. choose realistic outcome of planning.	1	5	70.0
8. identify problem(s) faced by planners.	1	4	35.0
9. identify important aspect of clarifying goals for planning.	1	5	55.0
10. identify technique(s) for conducting subjective needs assessment.	2	4	35.0
11. identify technique(s) for conducting objective needs assessment.	2	5	20.0
12. select technique for group decision-making.	2	5	70.0
13. identify steps in "need analysis" phase of planning process.	2	2 items of 4 1 item of 5	10.0
14. select description of planning model.	3	5	30.0
15. select description of Delphi-method.	3	4	80.0
16. select description of planning/management system for short-term planning activities.	3	5	45.0

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[o] Mastery indicators have been paraphrased.

*Module 1="Overview of Planning", Module 2="Application in Steps of Planning", Module 3="Wrap-up".

**Percent of participants answering correctly the item(s) dealing with the mastery indicator.

Additional Information:

T477-073-9-5 Evaluation of the Performance Level Administrator Training for Optimum Resource Management (Title IV-C), 1977, Russell Chadbourn, Mark C. Anderson.

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Abstract

Evaluation of the Guidance Assessment and Accountability Model (Title IV-C)

Evaluators: Russell A. Chadbourn
Mark C. Anderson

Objectives of the Program: The purpose of the Assessment and Accountability Model for Elementary School Guidance Project was to develop and test a needs assessment design, to provide input for the revision of the *Guide for Developing a Student Outcome Based Guidance Program at the Elementary School Level* (the guide used in the implementation of the Guidance and Counseling component of the Emergency School Aid Act, 1976-77 Project, hereafter referred to as the *Guide*), and to assist schools in utilizing the needs assessment data to select strategies for satisfying identifiable needs. Project Staff consisted of a counselor-facilitator and an assistant planner. Staff operated in four of the twenty-seven 4-6 centers involved in the ESAA Project. (The purpose of the Guidance Component of the ESAA project was to provide a guidance and counseling program for grades 4-6 based on assessed needs.) Four ot the 27 Project schools (Rylie, Preston Hollow, Marcus and Caillet) were introduced to the systematic planning model as presented by the Campus Level Planning Project. Rylie and Caillet were among the first schools to be involved in the Campus Level Planning Project during the 1975-76 school year. During the 1976-77 academic year the Project Staff also served as resource persons for the Campus Level Planning project.

The Model for Accountable Elementary Guidance (MAEG) as it has evolved in this project calls for the guidance assistant and management team to conduct a joint needs assessment. Based on their respective frames of reference, interaction with each other and input from various members of the school community, two sets of needs were identified (general Campus Level Planning needs and Campus Guidance Needs). The Guidance Assistant and Management Team were to formulate two plans for meeting these identified needs; a guidance plan and a Campus Level Planning Plan. A guidance plan is to be a highly structured document written according to instructions in the *Guide.* (See Appendix for an example of the prescribed format.)

Purpose of the Evaluation: This evaluation of the MAEG project provides a summary of Project Staff progress, a discussion of how collected data relates to questions outlined in the Evaluation Plan, and a discussion of problems associated with the project.

Staff Progress: Project timelines called for completion of the needs assessment activities by February 15, 1977. According to the Campus Level Planning Model, the planning model used in this project, needs assessment activities

consist of identifying areas of concern, selecting strategies for investigating areas of concern, collecting and analyzing data and the selection of need(s) to be addressed. Guidance need(s) were identified at each of the project schools by the specified date. Management teams at Rylie, Preston Hollow and Marcus were also within the timelines for collecting and analyzing data and for identifying the needs they will address in their plan. Data collection and analysis activities have been completed at Caillet but identification of general Campus Level Planning needs is still pending.

A summary of the needs assessment activities at the four project schools follows. (Paragraph headings are terms used in describing phases of the Campus Level Planning Model.)

Input. Initial activities in the needs assessment involved a survey of the environment for areas of concern (e.g.,brainstorming to identify problems or potential problems, profiling of test scores, etc.) and identification of strategies to be used in the collection of the data (i.e., creating a needs assessment design for each school). Project staff served as facilitators in the identification of areas of concern for each school but, as intended, was largely responsible for the creation of each of the needs assessment designs. Project staff was to seek input from parents, faculty and students on the designs. In actuality, only input from members of the management teams was sought by Project Staff. Project timelines called for these early needs assessment activities to be completed by October 15. However, the late assignment of the Guidance Assistants to project schools disrupted timelines in the early stages of the Project. Starting dates for Guidance Assistants at Caillet, Rylie, Marcus and Preston Hollow were 10-26-76, 12-1-76, 12-2-76, and 1-3-77, respectively. These initial needs assessment activities were completed in mid-November at Caillet and by mid-December at the remaining schools.

Project Staff followed the establishment of needs assessment designs by initiating data collection activities in each of the project schools. A Guidance Survey instrument developed by Project Staff was administered to faculty at all the Project schools.

The faculty at Rylie were also asked to respond to two instruments used in the needs assessment of the previous year.

The teams at Marcus and Caillet surveyed a sample of parents who served on advisory groups at their respective schools. In addition, the Marcus team polled a selected sample of parents from the local and feeder attendance areas. A Community Survey instrument developed by Project Staff was administered to parents of Rylie's 4-6 students. At Preston Hollow, the Guidance Assistant contacted approximately 50 parents by telephone.

Results from the surveys were processed by Project Staff and presented to the management teams of the schools. Presentations of the data were made in late January and early February. The plan called for the data to be available in a useful format at each school by January 31, 1977.

Decision-making. After reviewing the list of needs derived from the needs assessment data, members of the management team at Rylie decided that most of the indicated Campus Level Planning needs were being taken care of in current programs as well as they could be. By consensus, these lesser needs were dismissed and the team decided that the primary needs to be addressed were the special needs of the slow learner. Several ancillary needs were identified from a summary of the comments solicited by the Community Survey. One of these, the need for better communications of student progress, was addressed by devising a student progress report for distribution in the third week of each six week grading period.

Considering the list of identified guidance needs, interaction with the management team and informal input from members of the faculty, the Guidance Assistant at Rylie chose to address the needs associated with developing career awareness in the student. A guidance plan was written as per Project timelines, which called for the final plan by May 15.

The Management Team and Guidance Assistant at Preston Hollow decided that their primary need was to develop skills and attitudes in students that would promote maximum achievement consistent with ability. This need was chosen as both a Campus Level Planning need and as a Guidance need. Needs frequently expressed by parents sampled in the telephone survey included a need for better understanding of their children's test results and a desire for more information on how they as parents could help their children in the home. The Guidance Assistant, after interacting with the management team, wrote the Guidance Campus Plan. The plan was submitted according to schedule.

The Management Team at Marcus, after considering informal input from the faculty, identified the primary Campus Level Planning need as being the need for students to learn skills and adapt attitudes necessary for successful performance on standardized tests. The primary Guidance need selected by the Guidance Assistant was the need for students to accept responsibility for their own behavior. The Guidance Assistant completed the Guidance Campus plan according to schedule.

The Management Team at Caillet was involved almost exclusively with the allocation of monies accruing from a recent bond election. Consequently, Project Staff was not as visible as they would like to have been. Secondly, the Guidance Assistant did not have the opportunity to interact directly with the Management Team. For example, there was no interaction with the Management Team per se in the actual process of identifying guidance needs. However, the Guidance Assistant, having identified needs from the needs assessment data, did seek input on those needs from each of the planning team members and other faculty members through the grade level team meetings. (The entire faculty was contacted in this manner.) The highest priority Guidance need was the need for each child to be self-directing in their attempting and completing school assignments. A guidance plan was written which met project timelines.

The Management Team at Caillet did not select a highest priority Campus Level Planning need. Late in the academic year (mid-March) the team began to devote their planning time to concerns other than the pressing and immediate concern resulting from the bond issue. A comparison of this school year's fall and spring testing results was one of the needs assessment activities slated for the remaining meetings.

In addition to their role as facilitator, Project Staff was responsible for offering input that will aid ESAA Project Staff in the redesign of the Guide. The initial literature review, synthesis and description of the model used in this project was completed in January (Report No. T477-072-91-5). Project timelines called for completion by October 15. However, the assistant planner who shared responsibility in the writing of this report was on medical leave of absence during September, October and November.

Project staff was to meet with ESAA personnel during January concerning ongoing needs assessment processes. These meetings were held per stated timelines.

A background report (Report No. T477-072-92-5) and the final report (Report No. T477-072-93-5) were completed in May, in accord with project timelines. The background report offered a rationale for using needs assessment techniques in establishing a guidance program and delineated various processes for conducting local needs assessments. The final report documented some of the procedures used in the Dallas project and and presented an idealized model for accountable elementary guidance. These reports were offered to ESAA personnel for the purpose of redesigning the Guide. Project Staff also became involved in the actual revision of the Guide.

Evaluation Results: Results of evaluation instruments administered during the course of the project are presented in Tables 1-5.

Table 1 presents item means from a survey administered to planning team members during December. Scores reflected what was considered to be a favorable attitude toward Project Staffs' efforts to solicit the team's input concerning the needs assessment. When averaged across items, the possible range of scores was from 1 to 5, where one (1) was least favorable and five (5) was most favorable. The overall mean of these average scores was 3.96. Guidance assistants, responded most favorably (mean = 4.53) among the types of respondents, followed by administrators (mean = 4.08) and instructional personnel (mean = 3.88). Comparing across item means among schools, planning team members at Rylie responded most favorably (mean = 4.31), followed by Preston Hollow (mean = 4.08), Marcus (mean = 3.80) and Calliet (mean = 3.77).

The difference in means between Rylie and the other schools could be ascribed to the relatively lower percentage of instructional personnel in the Rylie sample (i.e., 63% at Rylie vs. 86% at Preston Hollow, 80% at Calliet or 80% at Marcus). In other words, since instructional personnel tended to respond least favorably their "lowering" effect upon the mean would be more in a school with a high percentage of instructional personnel. However, the average across item mean of instructional personnel at Rylie (4.18) was greater than the average across item mean of instructional personnel at Calliet (3.65), Marcus (3.71) and Preston Hollow (4.13). It

TABLE 1

Planning Team Attitudes Towards Efforts to Solicit Input

Item	School: Item Means*				Respondent Type: Item Means			
	Caillet	Marcus	Preston Hollow	Rylie	Instructional Personnel°	Administrators	Guidance Assistants	Across Groups
1. During meetings with project staff, project staff appeared inattentive during discussion of suggestions by others concerning development of the initial needs assessment design.	4.13	4.10	4.21	4.38	4.14	4.33	4.50	4.19
2. During meetings with project staff, project staff explained or explored those questions raised concerning the initial needs assessment design.	3.80	3.90	3.77	4.50	3.83	4.17	4.50	3.93
3. During meetings with project staff, project staff did not actively solicit suggestions concerning the initial needs assessment design.	4.00	4.00	3.80	4.13	3.92	3.83	4.50	3.96
4. During meetings with project staff, project staff appeared eager to involve us in a needs assessment design for our school.	4.13	3.90	4.50	4.50	4.19	4.50	4.50	4.26
5. During meetings with project staff, I felt as if the suggestions I made concerning the needs assessment design were not really heard or clearly understood by project staff.	2.93	3.40	4.27	4.25	3.61	3.83	4.00	3.67
6. During meetings with project staff, project staff appeared receptive to our suggestions concerning the initial needs assessment design.	4.07	3.70	4.14	4.63	4.00	4.33	4.75	4.11
7. Considering only the total amount of meeting time, I felt that there was sufficient opportunity for participants to provide input to the initial needs assessment design.	3.47	3.50	3.83	4.00	3.58	3.67	4.67	3.67
8. I felt that project staff dominated meetings to the point that input was inhibited.	4.13	3.60	4.17	4.38	4.03	4.00	4.67	4.07

TABLE 1 (cont'd)

Planning Team attitudes Towards Efforts to Solicit Input

Item	School: Item Means*				Respondent Type: Item Means			
	Caillet	Marcus	Preston Hollow	Rylie	Instructional• Personnel	Administrators	Guidance Assistants	Across Groups
9. At times it seemed that project staff had already made up their mind about the area under discussion.	3.40	3.90	3.83	4.13	3.61	4.00	5.00	3.76
10. Project staff made arbitrary decisions without giving thorough consideration to participants' ideas.	3.60	4.00	4.08	4.25	3.81	4.17	4.75	3.93
Across Item Mean +	3.77	3.80	4.08	4.31	3.88	4.08	4.53	3.96
Maximum No. Responding	15	10	15	8	38	6	4	48
Return Rate	.88	.91	1.00	.89				

*Planning Team members were asked to indicate if they strongly disagreed, disagreed, were neutral, agreed or strongly agreed with each of the statements presented on the left hand side of this table. Since items 1, 3, 5, 8, 9, and 10 are negatively oriented, responses to these items were reversed in the computation of item means. Thus, in each case, the higher the mean the more favorable the response. The range of possible response values was from 1 (strongly disagree) to 5 (strongly agree).

+The mean of the average across item score. If more than 40% of items for an individual were missing then that individual was omitted from calculation. This procedure was applied in Tables 2-5 as well.

•Personnel who responded but did not identify their position were included in the instructional personnel group. This procedure was applied in Tables 2 and 4 as well.

appears then that the differences among schools was perhaps not solely a function of the composition of teams but could be attributed to the differential interaction of Project Staff with Planning Teams. Perhaps the initial positive response evidenced by the planning team at Rylie helps to explain the thoroughness of the needs assessment conducted at that school.

Comparing item means across groups, planning team members generally responded least favorably, although still positively, to items 5 (mean = 3.67) and 7 (mean = 3.67). Again, the scale ranged from 1 = very unfavorable to 5 = very favorable, with 3 = neutral. Item five (5) asked respondents if they felt there was a good communication of suggestions to Project Staff about the needs assessment design. Team members at Caillet and Marcus tended to be somewhat neutral (mean = 2.93 and 3.40, respectively) while members at Preston Hollow and Rylie tended to respond more favorably (means = 4.27 and 4.25, respectively.) Item seven (7) asked respondents if they felt there was adequate time devoted to these initial meetings concerning the needs assessment design. Responses were generally more consistent across schools for this item,with means ranging from 3.47 at Calliet to 4.00 at Rylie.

Items not presented in Table 1 but attached to the same questionnaire, asked team members to indicate how many meetings they had attended, how long meetings lasted, etc. Opportunity for Project Staff/planning team interaction appeared greatest at Marcus where team members who responded indicated that they had met at least once and some as many as 10 times. At the other schools, team members reported attending from one to six meetings at Rylie, one to three meetings at Preston Hollow and one to two meetings at Caillet.

Planning team members generally indicated that the needs assessment design as it was implemented at their school was both relevant and useful. Items and item means are presented in Table 2. The survey was distributed in February. Team members were asked to rate the relevance and usefulness of several aspects of the "input" phase of the needs assessment (e.g., the selection of areas of concern, the planning of strategies for investigating areas of concern and the analysis of collected data).

Ratings could range from a value of one (1) (not relevant or useful) to a value of five (5) (very relevant and useful). The overall mean was 4.10. Individual item means across all respondents varied little, ranging from 4.06 to 4.16. Of the planning team members, those at Rylie responded most favorably with an average across item mean rating of 4.41, those at Preston Hollow averaged 4.23, and those at Caillet and Marcus averaged 3.90. As would be expected, guidance assistants responded even more favorably with an average across item mean of 4.72. All four of the guidance assistants indicated that the needs assessment was very relevant and useful in producing a list of suggested needs (item 2). The three guidance assistants who responded to item six (6) indicated the needs assessment design was, as a whole, very relevant and useful.

TAB

Planning Team Attitudes To

Item	School:	Ite
	Caillet	M
1. How relevant and useful was (were) the results of the needs assessment survey(s) conducted at your school?	3.86	3
2. How relevant and useful was the needs assessment design in producing a list of suggested needs for your school?	4.14	3
3. The needs assessment began with the selection of various areas of concern. In the light of the results of later investigation of these areas, how relevant and useful do you feel they are?	3.79	4
4. How relevant and useful were the strategies that were planned for investigating those areas of concern?	3.93	4
5. Considering the data collected from the survey(s), interviews, etc. how relevant and useful was the analysis of that needs assessment data?	3.93	3
6. Considering all aspects of the design, how relevant and useful was the needs assessment design at your school?	3.79	4
Across Item Mean	3.90	3
Maximum No. Responding	14	
Return Rate	.82	

*Raw scores were reversed so that a one (1) represents "not relevant or
Although attitudes could range over a continuous scale, responses were

LE 2

wards "Input" Phase of Project

m Means*			Respondent Type: Item Means			
rcus	Preston Hollow	Rylie	Instructional Personnel	Administrators	Guidance Assistants	Across Groups
.50	4.50	4.50	3.88	4.50	4.75	4.08
.83	4.25	4.33	4.04	4.14	5.00	4.16
.17	4.38	4.44	4.00	4.43	4.50	4.14
.00	4.00	4.33	3.88	4.43	4.50	4.06
.83	4.29	4.44	4.00	4.14	4.75	4.11
.17	4.33	4.44	3.96	4.29	5.00	4.11
.90	4.23	4.41	3.94	4.32	4.72	4.10
6	8	9	26	7	4	37
.60	.89	1.00				

useful" and a five (5) represents "very relevant and useful."
necessarily recorded as integer values.

School personnel not on the planning team but who participated in the needs assessment appeared to have a positive attitude about the usefulness of the needs assessment as a necessary step in establishing a guidance program. Results of a survey distributed to faculty are presented in Table 3. The survey was administered in February, after other data collection activities had been completed at each of the schools. The overall mean across schools and items was 3.84 where a one (1) was least favorable and a five (5) was most favorable. Surprisingly, members of the Rylie faculty responded least favorably across items (mean = 3.45). Preston Hollow respondents were most favorable (mean = 4.22). Return rate did not seem to be a factor in the difference between Preston Hollow and Rylie since the return rates were almost equivalent. Perhaps the less positive response at Rylie could be attributed to the respondents having been asked to fill out more questionnaires than faculty at other schools, thus creating among Rylie respondents some type of negative response set towards questionnaires in general needs assessments in particular. Of particular interest in this regard are the across-school item means for item three (3) (mean = 3.41) and item five (5) (mean = 3.44), which were lowest among item means for the combined group of all respondents. Item three (3) asked respondents if they felt that guidance needs were obvious and that therefore the guidance needs study was unnecessary and item five (5) asked if they felt that common sense alone could have supplied a list of needs. Members of the Rylie faculty responded less favorably to these items than to any other of the items and also less favorably than the faculty at either of the other schools (means = 2.71 and 2.93 for items 3 and 5, respectively).

Results from a survey administered to planning team members is presented in Table 4. The survey was distributed in May, after most of the teams had completed the "decision-making" phase of the needs assessment process. There was a generally favorable attitude toward Project Staff efforts to assist the teams in using the needs assessment data. Items 1 through 5 dealt with specific activities employed in the decision-making phase of the model. (Decision-making activities include the prioritization of indicated needs, identification of alternative programs, assessing feasibility of those programs and making a plan for implementation of the selected program.) Means for this group of items ranged from 4.21 for item one (1) to 4.02 for item five (5). Means for schools were also limited in variability ranging from 4.06 at Caillet to 4.24 at Marcus.

Other results from the questionnaire administered in May are presented in Table 5. Planning team members tended to respond favorably on items 1-4 (the range was from 4.02 to 4.14). In general, they felt that suggestions made during and after the "input" phase would result in correction and improvement in a revised needs assessment design. The notable exception was item five (5) (mean = 3.38). Item five (5) considered in general what items one through four considered specifically (i.e., the relevance and usefulness of a needs assessment design revised on the basis of input offered to Project Staff). Perhaps these conflicting results could be explained by a difference between the phrasing of the fifth item and the first through fourth items. The fifth statement was positive and absolute (e.g., "... a revised needs assessment design ... would be very relevant and useful.")

TABLE 3

School Personnel Attitudes Toward the Needs Assessment

Item	School: Item Means*				
	Calliet	Marcus	Preston Hollow	Rylie	Across Schools
1. I feel that the results of the school and guidance needs study will prove to be useful in planning an elementary guidance program.	4.18	4.05	4.22	4.00	4.10
2. Based on what I have seen or heard, I feel that the processes and instruments of the school and guidance needs study were relevant to our school setting.	4.18	3.95	4.00	3.79	3.98
3. That there are needs for student guidance at our school is obvious and therefore, the investigation provided by the school and guidance needs study was unnecessary.	3.75	3.21	4.33	2.71	3.41
4. I don't think that a worthwhile student-outcome based guidance program will be developed at our school.	4.47	3.85	4.22	3.71	4.05
5. Common sense alone could supply us with a list of needs and the reasons why those needs exist.	3.94	3.10	4.11	2.93	3.44
6. Based on what I have seen or heard. I feel that the implementation of the school and guidance needs study was done in a serious and professional manner.	4.35	3.95	4.44	3.57	4.05
Across Item Mean	4.16	3.69	4.22	3.45	3.84
Maximum No. Responding	17	20	9	14	60
Return Rate	.77	.77	.30	.36	.53

*Since item 3, 4, and 5 are negatively oriented, responses to these items were reversed in the computation of of item means. Thus, the higher the mean the more favorable the response.

TABLE 4

Planning Team Attitudes Towards "Decision-Making" Phase of Project

Item	School: Item Means*				Respondent Type: Item Means			
	Caillet	Marcus	Preston Hollow	Rylie	Instructional Personnel	Administrators	Guidance Assistants	Across Groups
1. Project Staff helped to narrow down the list of needs suggested by the needs assessment data.	4.13	4.33	4.25	4.22	4.13	4.38	4.50	4.21
2. The methods used to narrow down the list of needs suggested by the needs assessment study seemed arbitrary and without merit.	4.13	4.11	4.00	4.22	4.00	4.38	4.50	4.12
3. Project staff was not much help in trying to identify alternative programs or strategies that might have met our needs.	4.00	4.33	4.00	4.33	3.93	4.75	4.50	4.14
4. Efforts were made by project staff to help us assess the feasibility of most of the programs and strategies suggested.	4.13	4.22	4.13	3.89	3.97	4.50	4.25	4.10
5. Project staff was helpful in the making of a detailed plan for carrying out our programs and strategies.	3.94	4.22	4.00	4.00	3.87	4.38	4.50	4.02
Across Item Mean	4.06	4.24	4.08	4.13	3.98	4.48	4.45	4.12
Maximum No. Responding	16	9	8	9	30	8	4	42
Return Rate	.94	.82	.89	1.00				

***Since items 2 and 3 are negatively oriented, responses to the items have been reversed in the computation of item means. The higher the mean the more favorable the response. Actual response values could range from 1 (strongly disagree) to 5 (strongly agree).**

TABLE 5

Planning Team Attitudes Towards Design and Prospects for Revision

Item	School: Item Means*				Respondent Type: Item Means			
	Caillet	Marcus	Preston Hollow	Rylie	Instruc- tional Personnel	Adminis- trators	Guidance Assistants	Across Groups
1. Suggestions made to project staff about the instruments used in the survey should make the needs assessment design more relevant and useful for our setting.	4.19	4.00	4.00	3.78	3.90	4.38	4.25	4.02
2. I was not satisfied by the manner in which areas of concern were identified and I think that the same mistakes will be repeated in the revised design.	3.94	4.44	4.00	4.33	4.03	4.38	4.50	4.14
3. Suggestions made to project staff about the strategies used in investigating areas of concern should make the needs assessment design more relevant and useful for our setting.	4.25	4.13	3.75	4.11	4.03	4.38	4.00	4.10
4. I was not satisfied by the manner in which data was collected and analyzed and I think that the same mistakes will be repeated in the revised design.	4.19	4.22	4.00	4.11	4.07	4.25	4.50	4.14
5. I feel that a revised needs assessment design, based on the input offered project staff, would be very relevant and useful in our school setting.	3.69	3.33	3.50	2.78	3.37	3.38	3.50	3.38
Across Item Mean	4.05	4.02	3.85	3.82	3.88	4.15	4.15	3.96
Maximum No. Responding	16	9	8	9	30	8	4	42
Return Rate	.94	.82	.89	1.00				

*Since items 2 and 4 are negatively oriented, responses to those items have been reversed in the computation of item means. The higher the mean the more favorable the response.

whereas the other positively oriented items were not (.e.g., " should make the needs assessment design more relevant and useful."). Conversely, the negatively oriented items were absolute (e.g., "... mistakes will be repeated."). Item means for the absolute and negatively stated items (mean = 4.14 for both items 2 and 4) were slightly higher than item means for the positively oriented items (means = 4.02 and 4.10 for items 1 and 3, respectively) and considerably higher than the fifth and most absolute and positive item (mean = 3.38).

When asked to share any comments or suggestions concerning the project, 16 of the 42 planning team members responding did so. Three commented that the placement of competent counselors would be essential if the program were to succeed in other schools. Three suggested that faculty awareness was important. One of these three noted the program should be introduced early in the year. The remaining two suggested that it would be better if all of the faculty, not just the planning team, were acquainted with the importance of the program. One member commented that the team should strive to be more specific in addressing needs. Mandatory assignments to the planning team by the principal were criticized by another. One planning team member suggested that minutes be kept of planning team meetings. Finally, it was suggested that Project Staff visit classrooms and point out to teachers some of the identified needs.

Guidance assistants were asked to respond to some additional questions on the survey distributed in May. Asked whether they thought that their interaction with the planning team facilitated or hindered the performance of their duties, all responded positively. One guidance assistant thought the guidance program to be more practical as a result of the interaction and that she was better able to coordinate the guidance program with other needs of the campus. Another thought that the planning team fostered support for the program throughout the faculty ("because they [the team] helped develop it," she added). All the guidance assistants indicated that they thought the planning team was made more aware of the school's guidance needs as a result of their presence.

The preceding discussion is an evaluation of the success of project staff in applying and adhering to the prescribed process. To that end project staff was judged to be successful.

An additional concern might be to note similarities or differences between the four MAEG (Model for Accountable Elementary Guidance) schools and the remaining 23 schools involved in the ESAA project.* At schools not involved in MAEG (henceforth, non-MAEG schools) Guidance Assistants worked with a Guidance Task Force in the planning and implementation of the guidance program. At MAEG schools a Guidance Assistant and a planning team worked together. (From the ESAA perspective the planning team was the task force for that school.) The composition of the planning team and Guidance Task force were different. Principals did not serve on any of the Guidance Task forces whereas the principal served on the planning team at each of the MAEG schools. Parents served on each of the task forces but only Caillet reported having parents who were involved with the planning team.

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*Although 27 positions were funded only 24 of the counselors were actually at the schools. Two had not been replaced in the classroom (as of March 1) and one was on leave of absence.

In the evaluation survey administered in May, when Guidance Assistants from Project schools were asked to compare their experience with that of the Guidance Assistants at the non-MAEG schools, none of them was able to offer any distinction. However, an examination of results of an ESAA project evaluation survey administered to Guidance Assistants at the 24 schools actually involved in the ESAA project yielded some apparent differences. Guidance Assistants at MAEG schools tended to rate the "Task Force" more helpful than did Guidance Assistants at non-MAEG schools. The mean response for MAEG Guidance Assistants was 3.50, where the possible range of responses was from one (1) (little help) to four (4) (very helpful). The mean for the remaining Guidance Assistants was 2.95. A t-test conducted on the difference between the means showed no significant difference at the .05 level ($t = 1.09$, $p < .30$) indicating that although these two groups did differ, one should not expect future similar groups to differ in the same manner.

In the same survey, Guidance Assistants were asked to indicate how many meetings they had had thus far, with their task force. The average number of meetings was 7.25 for MAEG schools. The average number of meetings for the remaining schools was 3.15. A t-test conducted on the difference between the mean number of meetings for the two groups showed a significant difference existed ($t = 2.68$, $p < .015$). This indicates that future similar groups could be expected to differ in somewhat the same way.

Responses from the two groups did not seem to diverge on at least two item measures. All the Guidance Assistants (24) indicated that they thought that most of the staff at their school was aware of the Guidance program. Twenty-two of 24 indicated that they thought that most of the staff was supportive of the program. Two of the Guidance Assistants were not sure if the staff was supportive. One of those unsure was from a MAEG school.

The survey instruments used in MAEG schools differed from those used in non-MAEG schools. The Guidance Survey instrument used in the needs assessments at MAEG schools sought two types of responses from those polled: (1) the respondent's opinion on the importance of a particular need and (2) the respondent's opinion on how well that particular need was being met. Discrepancies between these types of responses indicated that either performance was lacking where performance was most desired or performance was present where performance was least desired. In this manner, needs were identified based upon the magnitude of the discrepancy. In contrast, questionnaires used in needs assessments at non-MAEG schools sought only one type of response for each of the suggested needs presented to the respondent (that is, "how important is this need?").

Yet another concern of Project management might be the perceived need, among MAEG schools, for some of the services provided by the project. Information relevant to this concern was obtained by examining faculty responses to two items from the Guidance Survey instrument administered in

MAEG schools. Items and item means are presented in Table 6. Responses to these items are of particular interest since the needs represented by these items are somewhat related to the needs addressed by the Project (i.e., the identification of needs and the modification of the environment so that those needs are met). Besides item means, a mean difference and a standard score (z-score) referencing the distribution of mean differences for that school are listed. Respondents generally indicated that the needs were important and were being met satisfactorily.

The standard scores for the mean differences indicate that these needs were among the least of their concerns.

Discussion: As evidenced in the previous sections evaluation results were generally favorable. However, two criticisms do emerge. The first is that ESAA personnel and Project Management should more effectively coordinate timelines for their activities. In at least two instances ESAA timelines listed an earlier deadline for the completion of some process or activity than Project (MAEG) timelines. For example, ESAA timelines called for the completion of needs assessment activities by October 31. Project timelines called for completion of the same activities by January 31.

The second criticism is that the campus plans did not clearly reflect the results of the local needs assessment. Campus plans from MAEG schools and non-MAEG schools were generally indistinguishable, despite the differences in the effort and sophistication of the needs assessment. A cursory review of plans submitted to Evaluation staff of the ESAA Project revealed that most of the plans adopted either wholly or in part the same goals, objectives, processes and outcomes as presented in the Guide. This was true of MAEG plans as well. A major purpose of the needs assessment (i.e., to assign priority for action) would be thwarted by adopting a plan a priori. Perhaps Guidance Assistants could draw from a pool of goals or write their own goals so that they more accurately reflect the needs of his/her campus. Indeed, this was the intended procedure as outlined in "A Model for Accountable Elementary Guidance." If, however, Project management felt that certain needs were universal and must be addressed then they should be so noted in the plan.

TABLE 6

Needs Assessment Information Derived From Guidance Survey

Item*	Item Means, Differences and Standard Scores**	Calliet	Marcus	Preston Hollow	Rylie
Do teachers in our school need help in the identification of the needs of the individual, providing information about appropriate services and making necessary referrals?	"Importance of need" mean:	3.46	3.61	3.30	3.06
	"Extent need being met" mean:	3.17	3.35	3.02	3.12
	Mean difference:	.29	.26	.28	-.06
	Standard Score:	-.97	-1.21	-.72	-1.58
Do teachers in our school need help in reviewing the identified student needs and modifying areas in the school environment which may lead to interpersonal and inter-group conflicts?	"Importance of need" mean:	3.36	3.35	2.86	3.06
	"Extent need being met" mean:	3.38	3.35	2.94	2.96
	Mean difference:	-.02	0.00	-.08	.10
	Standard score:	-2.10	-2.22	-1.69	-1.13

* These items are from the Guidance Survey instrument administered in MAEG schools. Respondents were asked to assess the need in terms of its importance and the extent to which need was being met.

**The range of possible values for "importance" responses was from 1 to 4 where a 1 represents "not important" and a 4 represents "very important". Similarly, the "extent being met" response values could range from 1 to 4, where 1 represents "not being met" and a 4 represents "totally met". The mean difference is the difference obtained by subtracting the "extent being met" mean from the "importance" mean. The standard score is based on the distribution of the mean differences for each of the items on the survey of a particular school.

APPENDIX

Elementary School Guidance Program
Campus Plan

1.0 Awareness Level

Educational Domain

____
Campus

1.1 Goal
1.11 Objective

197__ - 197__

Student will develop an awareness of the educational setting.

Student will have knowledge of the school environment through orientation activities on the needs of the students.

Process(es)	Outcome(s)	Evaluation	Grade Level(s)	Resources
Kindergarten, first grade and all new students will be invited to participate in an orientation program during the spring which will include a tour of the school.	By the end of the first week of school no more than ____% of new students will need special assistance in finding classrooms, cafeteria, restrooms, nurse's office, principal's office, etc.	To be developed either at the individual campus level or a district-wide level.	Indicate grade level(s) to be involved in each process	List people, data, and materials to be used with each process.
Information detailing all school entry requirements, records, immunization, etc., will be given to each parent.	Records received from parents the first week of school will be ____% accurate.			
New students entering school any time during the year will be given an orientation to the school plant and school programs by the counselor.	____% of new students entering school will not need special orientation assistance following the orientation provided by the counselor.			
During any orientation within the school year, the counselor will explain his or her role and duties to students and parents.	____% of students and/or parents who have participated in the orientation program will be able to name three duties of the counselor.			
During the first two weeks of school the counselor will visit all classes to inform students of the role and duties of the counselor and answer questions in regards to school regulations, bus schedules, school activities, etc.	____% of students surveyed will be able to express orally or in writing how the counselor can be of assistance to them.			

APPENDI

Process(es)	Outcome(s)
Before changing educational levels, students will be afforded orientation activities planned at appropriate levels.	___% of students changi educational levels will ticipate in orientation activities to inform the the new environment.

X (cont'd)

	Evaluation	Grade Level(s)	Resources
ng par- s of			

Additional Information:

T477-072-9-5 Evaluation of the Guidance Assessment and Accountability Model (Title IV-C), 1977, Russell A. Chadbourn, Mark C. Anderson.

1637

Abstract

Evaluation of the Teacher Evaluation Pilot Program (TEPP) of 1976-77

Evaluator: Wallace Carter, III

Objectives of the Program: The Teacher Evaluation Pilot Program (TEPP) was designed to introduce certain features of a new method of Teacher Evaluation to personnel of select schools in the District. The use of an Evaluation Team comprised of a Principal and the individual teacher at each school, also of a Dean of Instruction and Departmental Chairperson (DC) at the Middle and Senior High Schools and of an Instructional Lead Teacher (ILT) at the Elementary (K-6) schools; the setting of specific instructional goals; special classroom visits by DC's or ILT's; interim feedback to the teacher; team assessment of success in attaining instructional goals -- these constitute the main features of the program which was expected to yield a more objective and equitable process of teacher evaluation than is currently used throughout the District.

Purpose of the Evaluation: The evaluation of TEPP was aimed at determining the extent of program adherence by participants and the attitudes of school personnel, especially teachers, toward the new method. In addition, attitudes towards the two present methods of evaluating teachers were to be compared between TEPP and non-TEPP teachers and identification of relevant factors influencing or being influenced by TEPP was to be made. Originally, classroom process and product were to be investigated, however, as the program progressed, it became clear that direct or indirect intrusion upon the classroom by the evaluators could have adverse effects on program development. Therefore, this aspect of the evaluation was considerably curtailed.

Sample: Seventeen schools were selected, on a voluntary basis, to participate in the pilot program. One school was dropped from the study on its own request. The remaining 16 schools consisted of two Senior High schools (F. D. Roosevelt and W. W. Samuell), five Middle Schools (E. H. Cary, E. B. Comstock, W. E. Greiner, R. T. Hill, and Boude Storey), and nine Elementary schools (G. P. Allen, A. W. Blanton, J. N. Bryan, Casa View, F. Douglass, A. S. Johnston, D. D. Rogers, E. Titche, and M. Twain). Participation by all teachers in these schools was mandatory. Five of the subdistricts were represented (Seagoville was not). There was a total of 690 respondents to the final questionnaire: 587 regular teachers, 49 DC's, 28 ILT's, 16 Principals, and 10 Deans of Instruction.

Sixteen control schools were matched on the basis of five factors in order of priority: attendance area, student population, SES index, student reading achievement, and student math achievement. A random sample of 200 teachers was selected and 131 (65.5%) completed the final questionnaire for the control groups. Of the 200 teachers randomly selected from the remaining unmatched control schools, 123 (61.5%) completed the questionnaire.

The Teacher Behavior Rating Scale (TBRS) was distributed to 200 teachers randomly selected from the entire District. One-hundred and forty-one of them (70.5%) completed the scale.

Evaluation Design: The approach used to evaluate TEPP was designed to minimize any reactive effects due to the intervention of the evaluative process itself. There was to be no intrusion upon the classroom, no assessment of individual performance, and a minimum number of items on a minimum number of questionnaires.

There were two stages of data collection. In the first stage, three assessment techniques were utilized. Interviews with Principals of eight schools were conducted during the September 23 - 28, 1976 period to obtain preliminary impressions of reactions to the program and to identify possible external factors adversely affecting the progress of TEPP. An unobtrusive measure was used the week of October 18, 1976 to assess the quality of the formalized goal statements. School averages were calculated and compared against an a priori standard of acceptability. A survey questionnaire to determine program adherence and initial teacher attitudes toward TEPP was distributed to and completed by all pilot participants at the October 29, 1976 staff development meetings. Means, standard deviations, frequency and percentage frequency distributions, crosstabulations on school levels, an inter-item correlation matrix, and a factor analytic result were obtained.

In the second stage, data were collected by survey questionnaires. The Final TEPP Questionnaire contained process and product (attitudinal) items and also a section soliciting opinions as to whether or not the various program features should be modified. This survey instrument was completed by all TEPP participants at the April 8, 1977 staff development meetings. The "Present Method Evaluation" (PME) section of the Final TEPP Questionnaire was also distributed to the matched and unmatched control groups on April 1, 1977. The same statistics as in the previous survey were computed with the addition of analyses of variance using school level as the independent variable. Also, in order to compare results between the TEPP group and each control group, a discriminant analysis using the Hotelling T^2 was made and post hoc t-tests of significance under the Bonferroni restriction performed.

The TBRS instrument was sent out to the district sample of teachers on February 14, 1977. Comparative importance of the 10 behavior categories was determined on the basis of t-tests of significance on category means.

All completed questionnaires returned on or before May 13, 1977 were included in the data.

More information about teacher response to the program and about the influence of external factors was received during visits with groups of teachers at four of the schools (W. E. Greiner, Boude Storey, D. D. Rogers, and M. Twain).

There were originally 21 evaluation questions and an additional two executive questions comprising the focus of this study.* These can be grouped into the seven following major areas of concern:

1. TEPP school personnel attitudes toward the new program and a comparison with others' attitudes toward the old system.
2. Level of adherence to program specifications.
3. Comparative importance of the 10 behavior categories outlined in the professional section of the official evaluation form.
4. Association among internal variables.
5. Influence of external factors.
6. Propriety of program extension.
7. DISD's position relative to national trends in Teacher Evaluation.

Evaluation Results:

1. TEPP school personnel had generally favorable attitudes toward the new program. There were differences across job positions: Principals and Deans were quite favorable to it, DC's and ILT's were moderately favorable to it while classroom teachers were only slightly favorable to the operation of TEPP. Some exceptions, however, did exist. Teachers did not feel the program was as time consuming as other personnel did and especially as

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*One question regarding instructional differences was deleted from the study. Attempts to answer the question on achievement differences were limited. See "Purpose of the Evaluation" section of this abstract.

ILT's did. The latter also preferred the old method to the new one whereas teachers were neutral about their preference and other personnel preferred the new program.

There were some attitude differences among TEPP teachers along school levels. Middle school teachers responded most favorably to the program on all 22 attitude items save one while the elementary teachers gave the least favorable responses to 16 of those same items. The only unfavorable response was made by Elementary teachers regarding their preferred choice between the new and old methods of teacher evaluation. This response may have accounted for the ILT's similar preference for the old method. Within each school level there were noticeable differences among individual schools as well.

Major differences existed between TEPP teachers and each control group, particularly the unmatched control group, in their responses to the PME items. The following table presents averages for each teacher group on the items where quite significant differences were found.

Teacher Group Averages on Items
Where Significant Differences ($p<.005$)
Were Found
(1 = Strongly Agree, 3 = Neutral, 5 = Strongly Disagree)

	Teacher Group				
Item	Matched Control		TEPP		Unmatched Control
PRESENT METHOD...					
Fails to Recognize Unique Style	3.58		3.41	*	3.82
Takes Too Much Time	3.77	*	3.22	*	3.93
Is Systematic	2.53		2.65	*	2.29
Is Anxiety Producing	3.50		3.15	*	3.56

* indicates significant differences between adjacent column means.

None of the significant differences were in favor of TEPP. In fact, only on five items* did TEPP fair better than did the present method at the matched control schools, and only on one item* did it do so compared to the present method at the unmatched control schools. But these differences were very small. There were no significant differences between the control groups.

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* Present method...: opens communications, allows instructional method flexibility, has one justify objectives in light of District needs, is objective, and emphasizes classroom activities.

The following table shows that there were also differential attitudes among the matched control school teachers along school levels but that this is not true for the unmatched group; the latter is quite homogeneous.

Overall Average Responses to PME Items
(1 = highly favorable, 3 = neutral, 5 = highly unfavorable)

		Teacher Group	
School Level	TEPP	Matched Control	Unmatched Control
Elementary	2.63	2.03	2.35
Middle	2.43	2.51	2.33
Senior High	2.59	2.82	2.24
All School Levels	2.55	2.44	2.32

It is interesting to note that no group of teachers was as favorable to its particular system of teacher evaluation as were the Elementary teachers in the matched control group. The data from the above table suggest one of two likely conditions: 1) The matched control school teachers were initially different from both TEPP teachers and the unmatched group, or 2) TEPP had an appeal to Middle and Senior High teachers of those schools characteristically similar to TEPP schools, but, conversely, it lacked some feature which was appealing to Elementary teachers of those same schools.

The data in the following table suggest that there have been some teacher attitude changes toward TEPP over this first year of implementation.

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*Present method has one "justify objectives in light of District needs."

Average Response by TEPP Teachers to Five Attitude Target Constructs in the Interim and Final TEPP Questionnaire (1 = highly favorable, 3 = neutral, 5 = highly unfavorable)

Attitude Target Construct	Questionnaire Interim	 Final
To TEPP Generally	2.98	2.55
To General Teacher Evaluation based on Accountability	3.11	2.64
To DC's and ILT's Participation	2.91	2.74
To Degree of Helpfulness of the Evaluation Team	2.17	2.45
To TEPP Compared to Previous Method (presently used in the rest of the District)	3.03	3.04

Teacher attitudes towards TEPP have generally improved. However, the diminished favorability in regarding the team as being helpful and the persistent neutral position in considering the pilot method as being better than the previous one are the obvious exceptions. It should be noted that this interim-final comparison is based on different item statements over the two questionnaires. Only to the extent that these different statements tap the same attitude constructs is such a comparison valid.

2. The analysis performed for the interim report showed that specifications of the pilot program were being met adequately in the initial phase of TEPP. For the most part, deviations from guidelines were only minor. According to the Final Questionnaire data, subsequent adherence to program schedule was sufficient. Of those teachers who needed their goals modified, 75% had a formal conference with their Evaluation Team before the deadline for official goal modification, and of those, almost 94% had goals modified in accordance with the changing needs or perceptions of their classes. Seventy-seven percent of the teachers had a formal, year-end evaluation conference with their Team by the March 31 deadline; and 74% were officially informed of their final evaluation rating.

   Probably one of the most important program guidelines is the adequacy of instructional goals. In the interim survey, teachers responded with an average of 1.73 (quite favorable) in assessing the quality of their instructional goals. However, in the final survey they responded an average of 2.47 (slightly favorable) in assessing the soundness of those goals as a basis for teacher evaluation. The data indicate that those who did not have their goals modified responded with an average of 2.32 (moderately favorable) to the target item in the final questionnaire indicating a substantial reduction in perceived valuation of goals. There was an even greater devaluation by teachers who did have their goals modified (an average of 2.50, or slightly favorable).

3. Teachers seem to consider some of the behavior categories listed in the professional section of the official Evaluation Form as more important than other categories. The table below lists the categories in order from most important to least important. In addition, the table indicates those comparisons between categories which yielded statistically significant differences in assessed importance.

List of Behavior Categories in Order of Importance
as Assessed by Teachers and
Indication of Significant Differences
(* p<.005 level of significance)

		TB8	TB6	TB5	TB4	TB1	TB2	TB7	TB9	TB3	TB10
TB8	Classroom Management					*	*	*	*	*	*
TB6	Respect for Pupil Ideas					*	*	*	*	*	*
TB5	Teacher Example						*	*	*	*	*
TB4	Fairness to Pupils						*	*	*	*	*
TB1	Professional Conduct						*	*	*	*	*
TB2	Adherence to Admin Guidelines										*
TB7	Interest in Pupil Total Growth										*
TB9	Teacher Health										
TB3	Minimal Absences										
TB10	Establishes Communication System										

Note: TB = Teacher Behavior; numerical value = behavior category # ordinally listed on the Evaluation Form (e.g., TB8 = Teacher Behavior category #8).

This information suggests that from the teacher's viewpoint, his or her overall rating should not perhaps be based on all the behavior categories having equal weights of importance as is now the case. About 23% of the respondents to the TBRS had made some comments on the survey instrument. About 21% of these comments criticized the wording of the statements on the Teacher Evaluation Form, about 33% of them suggested some additional statements covering areas such as teacher attire, meeting instructional goals, and knowledge of subject matter, and about 21% of them recommended some operational change such as restyling the progress reports. Very few teachers recommended that any particular item should be deleted from the list. Some made a worthy point, however, in regard to the propriety of evaluating teachers on a matter over which they have limited control. (Category #10 states "The teacher establishes a system of communication wherein the parents are able to interpret the periodic report..."; such a system has already been established by the administration. Perhaps the effective use of that system is what should be evaluated.)

4. Two internal variables were unobtrusively investigated. Achievement data were obtained from scores on the Everyday Skills Test (EST) for 8th and 12th graders. Socioeconomic status (SES) indices were taken from a District study this year (Sheehan and Marcus, 1977).

   No association was found between school means (reading and math) on the EST and treatment group (TEPP and the two control groups of schools). Since these data are limited, any conclusions made at this point would be premature. There may or may not be some correlation found when more extensive data covering more grade levels are gathered.

   Some interesting findings appeared in the SES analysis. Teachers of upper SES schools responded more favorably toward TEPP on the final questionnaire than teachers of lower SES schools did. This trend was outstanding at the elementary school level wherein teachers of upper SES schools responded with greater support of the program on 37 of the 40 favor-related items and significantly so on 18 of them (10 at $p<.01$ level of significance and 8 at $p<.001$). On the other three items, the greater support response by elementary teachers of lower SES schools was small.

   A reverse SES effect seems to have occurred at the middle school level wherein teachers of lower SES schools indicated greater favorability to TEPP than their colleagues did. Though this trend was significant on five questionnaire items, it was not nearly as strong as the effect at the elementary school level. Therefore, when school level data were collapsed and Senior High school data included*, the overall SES effect merely reflected the preponderating SES effect at the elementary school level.

5. The influence of external factors was first determined on the basis of information received during interviews with a few of the TEPP principals and teachers. The conclusion drawn from those interviews was that there was one main external factor that could possibly have an adverse effect on pilot implementation and development --- the desegregation program. This matter was presented in the Interim Report with a recommendation designed to alleviate the problem.

   Subsequent data analysis comparing the group of schools impacted by the desegregation plan with the group of schools not impacted by it yielded an initially surprising result. Teachers of impacted schools responded with greater favorability toward TEPP on 32 of the 40 favor-related items on the final questionnaire than did teachers of non-impacted schools. Average differences on 6 of those 32 items were significant (evenly divided at the $p<.01$ and $p<.001$ levels of significance). Teachers of non-impacted schools were more favorably inclined toward TEPP on 8 of the 40 relevant items, 2 in which average differences were modest but not even nearly significant and 6 in which average differences were negligible.

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*As per agreement, comparison between the individual high schooles was not made.

The following table presents the significant item mean differences between impacted and non-impacted schools at two school levels. (Note: Intermediate and Middle Schools were exclusively impacted by this year's desegregation plan.)

School Level Having Significant
Item Mean Differences between Impacted (IM)
and Non-Impacted (non-IM) Schools

	Item	More Favorable (IM or non-IM)	School Level Intermediate	 Middle
4.	Teacher had formal conference before December 1, 1976 for purpose of modifying goals	IM	n.s.	p<.001
7.	Teacher informed of final evaluation rating	IM	p<.001	n.s.
12.	DC's (or ILT's) assisted more than evaluated teacher	non-IM	n.s.	p<.01
15.	TEPP is fair	IM	n.s.	p<.01
20.	TEPP has teacher justify objectives in light of District needs	IM	n.s.	p<.01
36.	Classroom visits schedule needs modification	IM	p<.001	n.s.
43.	Evaluation forms need modification	IM	p<.01	n.s.

As the table suggests, implementation of the desegregation plan differentially affected teacher response patterns along school levels. Teachers of impacted middle schools were a little more distinguishable from their counterparts in non-impacted schools than teachers of impacted intermediate schools were from theirs.

The comparatively greater overall valence to TEPP on the part of teachers of impacted schools is contrary to expectations. A close look at school characteristics may provide an explanation. The schools impacted by the desegregation plan, in the pilot sample, tend also to be the upper SES schools with only two exceptions. The rather strong and prevailing SES effect may well have overshadowed the effects due to the desegregation program.

6. Before the pilot program is expanded, the following theoretical, programmatic, and logistical obstacles should be overcome:

Theoretical Obstacles

- the relationship between the provisions of TEPP and what theoretically constitutes effective education is not clear.
- the relationship between the intent of TEPP and District Goals is not stated.

Programmatic Obstacles

- there is a lack of definitional clarity for such terms as instructional goals, instructional objectives, and goal indicators.
- the limits of tolerable deviation from program guidelines are not set and, therefore, not understood by all parties concerned.
- guidelines on what constitutes an acceptable content area for an instructional goal are not given.
- the kind of input requested from DC's and ILT's for the final evaluation conference is not clear nor consistent across schools.
- the role of Instructional Lead Teachers is not clearly understood by ILT's.

Logistical Obstacles

- DC's and ILT's are having difficulty obtaining free time to make classroom visits.
- it is difficult for all members of Evaluation Teams to be present at the 3 team conferences in a single school year.
- it is not clear whether or not Middle and Senior High school teachers are to have goals set for each quarter of the year; if so, is success determined on the basis that objectives of all three quarters were attained, of two of the three quarters, or of one of them?

The following table lists those features of the program which a majority or near-majority of the teachers indicated as requiring modification.

List of Program Features Requiring Modification According to the TEPP Teachers Who Responded to the Questionnaire Items

Item #	Program Feature	%-teachers indicating modification is necessary
30.	Evaluation Team Concept	44.5
36.	Schedule for Classroom Visits by DC's or ILT's	45.2
37.	Procedure for Setting Goals	50.0
38.	System for Interim Feedback to Teachers	62.8
40.	Procedure for Assessing Goal Attainment	45.9
42.	Mechanism to Clarify Program to Teachers	64.3

Most of the obstacles already cited relate in some way to the above listed program features. Some modifications in these areas may conduce to a continuity of understanding among all personnel such that there would be greater program consistency among all schools involved.

7. Information covering the systems of teacher evaluation currently being used by large school districts in the U. S. was obtained through contact with 12 of those districts. The table below indicates that the methods of teacher evaluation in the majority of these districts do not have the two main features characterizing TEPP -- the team approach to evaluation and the setting of instructional goals in order to supplement the basis on which teacher evaluation is made.

Features of Teacher Evaluation Methods in Twelve Large U. S. School Districts

("+" = feature present, "-" = feature not present, "?" = feature uncertain)

	Method Feature				
School District	Evaluation Team Used	Instructional Goals Used	Visits by Principals	All Teachers Evaluated at least Yearly	Any Pilot Program (recent or present)
Atlanta	+	+	?	-	+
Baltimore	+	+	+	+	+
Boston	-	-	+	-	-
Chicago	-	-	+	-	-
DALLAS	-	-	+	+	+
Denver	+	+	?	+	+
Fort Worth	+	-	+	-	+
New York City	?	+	+	?	?
St. Louis	?	-	+	+	-
San Antonio	-	+	?	+	-
San Diego	-	+	+	+	+
San Francisco	-	-	+	-	-
Seattle	-	-	+	+	-

Additional Information:

IR77-018-9-5 Evaluation of the Teacher Evaluation Pilot Program (TEPP) of 1976-77, 1977, Wallace H. Carter.

1649

Abstract

Evaluation of the
Partners in Reading Program, 1976-77

Evaluator: C. LaVor Lym
Kiveli Filmeridis
Pamela J. Holden

Objectives of the Program: Partners in Reading was implemented districtwide during 1976-77 in grades K-3. Criterion-referenced tests, the Tests of Essential Reading Skills (TERS), were developed by the Department of Reading and used to assess the reading skills of students in both the fall (pretest) and spring (posttest). Test data were supplemented with observational judgements made by teachers of mastery of the "essential" skills measured by the tests. The diagnoses of students were then reported to parents or parent advocates during special conferences with the teacher. During the conference for the pretest, parents and advocates received a booklet, Tips for Parents, which outlined instructional activities to be followed at home. Also at that time parents and advocates were given the opportunity to be trained to administer the TERS and then receive test materials. The Department of Reading actively sought the cooperation of business organizations to allow released time for employees who were parents to attend the conferences. The Junior League sponsored use of the program materials for special tutoring applications in 13 schools, and the support of public libraries was enlisted.

In general, the aim of Partners in Reading was to improve the reading skills of K-3 students through (a) careful diagnosis of students' strengths and weaknesses in reading, (b) placement of students in the appropriate basal reader, (c) accountability to parents, and (d) coordinated instruction in reading provided by parents.

Purpose of the Evaluation: The evaluation of Partners in Reading was designed to determine (a) the extent of parental involvement in the program, (b) the opinions of parents regarding the program, (c) the opinions of teachers regarding the program, and (d) the level of performance of students on the TERS.

Sample: School principals were surveyed by the Department of Reading to obtain a report of the number of parents and advocates attending pre- and posttest conferences. The Department of Research, Evaluation, and Information Systems surveyed samples of teachers and parents to obtain their opinions of the program. Data from the TERS for a sample of K-3 students were also collected by the Department of Research, Evaluation, and Information Systems. For the various populations, numbers in the target sample and numbers from whom data were actually obtained are shown in Table 1.

Table 1

Sizes of Actual and Target Samples of Principals, Teachers, and Students

Population	Number Actual Sample	 Target Sample	Percent
School Principals, Pretest	118	126	94%
School Principals, Posttest	78	126	62%
Teachers, Questionnaire Form A[a]	52	52	100%
Teachers, Questionnaire Form B[b]	49	52	94%
Teachers, Questionnaire Form C[c]	53	53	100%
Teachers, Total	154	157	98%
Parents	308	421	73%
Students	283	421	67%

[a] Dealt mostly with parent conferences.

[b] Dealt mostly with the TERS.

[c] General opinion questions.

Evaluation Design: Principals of all K-3 schools were surveyed by the Department of Reading in December, 1976, and again in June, 1977, to obtain the reports of the number of parent-teacher conferences. Teachers who were surveyed by the Department of Research, Evaluation, and Information Systems were selected randomly from a list provided by the District's Personnel Office. Matrix subsampling was employed to assign questionnaire forms (Form A - parent conferences, Form B - Test of Essential Reading Skills, Form C - general) to groups of approximately equal size. Then, 10% of the students of each teacher (to the nearest whole integer) were sampled randomly and the school principal coordinated the survey of those students' parents. Finally, teachers were asked to report data from the TERS for the sample of students.

Evaluation Results:

1. What was the extent of parental involvement in Partners in Reading?

   Presented in Table 2 are the results of the surveys in December and June of principals in K-3 schools.

Table 2

Report by School Principals on the Number of Parent-Teacher Conferences

Time of Report	Number of Conferences	Enrollment	Percent
December	26,780	39,411	68%
June	16,498	25,668	64%

Principals also reported in December that 14% of all students had needed a parent advocate. Advocates from various sources (e.g., school personnel, relatives of the children, other parents, and volunteers) were reported to have been found for 13% of the students who needed them. The pretest report of principals also showed that 17% of all parents were trained to use the TERS so they might administer the test at home.

Parents who were surveyed were asked to report directly on their involvement in the program. Results are presented in Table 3.

Table 3

Report by Parents in April on Their Involvement in the Program

	Percent of Responses (n=308)			
Area	Yes	No	Uncertain	No Response
Attended at least one reading conference	81%	16%	2%	1%
Informed by the teacher about the TERS	74%	19%	5%	2%
Have TERS to use at home[a]	59%	33%	6%	1%
Received the Progress Report Form	62%	29%	8%	2%
Received the Tips booklet	63%	30%	3%	4%

[a] Percent of parents responding "yes" differs substantially from what would be expected from the report made by the principals. Possibly, parents equated having the entire test with having the Progress Report Form.

Data from the teacher survey (Form A of the questionnaire) were also analyzed as yet another source of information regarding the extent of parental involvement in the program. On the average, teachers reported that 74% of all students were represented in pretest conferences by parents or advocates. Among all students, teachers reported that approximately 3% were represented by advocates. At the time of the survey (April, 1977), teachers reported having conducted follow-up conferences for 58% of all students, or 78% of those who were represented in pretest conferences. Teachers estimated that 33% of all parents and advocates used the TERS, and 45% used the TIPS booklet.

2. What were the opinions of parents regarding Partners in Reading?

Among those parents who responded to the survey (n=308), 17% elected not to answer a multiple-choice question seeking the name of the program (i.e., Partners in Reading). Thirty-nine percent correctly identified the program; 44% were incorrect in choosing the name of the program. Responses to other questions regarding awareness of the program are summarized in Table 4.

Table 4

Report by Parents in April on Their Awareness of the Program

Area	Percent of Responses (n=308)			
	Yes	No	Uncertain	No Response
Know all they would like about the program	19%	70%	10%	2%
Heard about the program in the news	37%	54%	8%	1%
Program this year differs from last year	25%	6%	68%	1%

A summary of responses to questions requiring that the respondent express an opinion regarding the District's reading program is given in Table 5. In general, opinions about the program were positive.

Table 5

Report by Parents in April on Their Opinions of the Program

Area	Percent of Responses (n=308)			
	Yes	No	Uncertain	No Response
Pleased with the progress in reading of their child	80%	15%	5%	0%
Perceived teachers as doing a good job in teaching reading	87%	2%	10%	1%
Program has increased child's interest in reading	63%	12%	24%	1%
Child is taught at correct reading level	74%	7%	13%	6%

3. What were the opinions of teachers regarding the Partners in Reading Program?

Among the teachers who responded to Form C (n=53), 75% reported that they believed the program was more effective than one without a formal reporting system to parents; 21% felt that the program was not any more effective; 4% gave no response. Fifty-seven percent of all teachers stated that the program was "definitely worthwhile"; 32% said it had "some merit"; 2% said it had "no merit"; 8% said "no opinion" or did not respond.

Presented in Table 6 are other opinions of teachers regarding the program and the assistance which was provided for its implementation. Support from the Reading Department and community were viewed as somewhat lacking, being significantly lower than support from local school administrators. Nearly half of the teachers felt the program required an unreasonable amount of time or expressed no opinion about the time factor.

A summary of teachers' ratings of the TERS is given in Table 7. High percentages of negative opinions (i.e., rating the test as unacceptable or needing improvement) can be seen for usability, appropriateness, physical format, and measurement accuracy. Interpretation, diagnosis, and placement in general received favorable ratings.

Table 6

Report by Teachers in April on Their Opinions of the Program

	Percent of Responses (n=53)			
Area	Yes	No	No Opinion	No Response
Adequate assistance from school administrators	72%	19%	6%	4%
Adequate assistance from Reading Department	51%	28%	21%	0%
Adequate support from community	45%	47%	8%	0%
Program requires a reasonable amount of time	47%	40%	2%	11%
Program is compatible with basal	74%	9%	0%	17%

Table 7

Report by Teachers in April on Their Opinions of the TERS

	Percent of Responses (n=49)				
Area	Unacceptable	Needs Improvement	Good	Excellent	No Response
Placement	0%	18%	49%	29%	4%
Diagnosis	0%	16%	45%	35%	4%
Usability	4%	31%	41%	20%	4%
Appropriateness	10%	27%	39%	18%	6%
Physical Format	6%	33%	41%	16%	4%
Measurement Accuracy	6%	24%	43%	22%	4%
Interpretation	2%	8%	51%	35%	4%

4. What was the level of performance of K-3 students on the Tests of Essential Reading Skills?

Presented in Table 8 are the average number of skills mastered at each level of the TERS for the pre- and posttest. Data for a student entered into the average only when a performance level was specified for every skill on the tests. Generally this substantially reduced the size of the original sample. Consequently, the precision of the averages when projecting to the entire population of students may be questioned. In general, however, students showed a significant gain in the average number of skills mastered from pretest to posttest.

Table 8

Average Number of Skills Mastered on the Pre- and Posttest

Test Level	Number of Skills	Sample	Pretest		Posttest	
			n	Average	n	Average
K	14	78	22	5	46	9
1	10	148	115	3	110	7
2	10	39	26	4	26	7
3	12	15	7	6	10	9

Since the TERS was designed to be administered at the instructional level of the student, the distribution of posttest levels was examined by grade level to determine the end-of-year functional performance of students. Results, which are presented in Table 9, indicated that as grade level increased an increasing proportion of students were functioning below level (the percentages below level were 13%, 57%, and 75% respectively for first, second, and third grades). On the other hand, percentages above level were 1%, 3%, 9%, and 9% respectively for grades K through 3.

Table 9

Functional Level of Students as Determined by Posttest Data of the TERS

	Grade Level							
	K		1		2		3	
Test Level	n	%	n	%	n	%	n	%
K	66	99%	11	13%	--	--	--	--
1	1	1%	72	84%	43	57%	18	56%
2	--	--	3	3%	25	33%	6	19%
3	--	--	--	--	7	9%	5	16%
4	--	--	--	--	--	--	3	9%
Total	67	100%	86	100%	75	100%	32	100%

Additional Information:

SE77-110-9-1 Evaluation of the Partners in Reading Program, 1976-77, 1977, C. LaVor Lym, Kiveli Filmenidis, Pamela J. Holden.

1657

Abstract

1976-1977 Final Evaluation of the Skyline Career Development Center

Evaluator: Wayne R. Murray, Ph.D.

Objectives of the Program: The Career Development Center is a large facility which was opened in the Fall of 1971. The facilities and equipment are modern and representative of those found in the various careers for which the students receive training. At present there are 25 clusters representing many different career areas. In 8 of the clusters, students have an opportunity to specialize in a specific work area within the cluster. For example, students in the Fashion cluster focus their attention on either apparel assembly, design and pattern making, or merchandising. Thus, the 25 CDC clusters yield approximately 40 different work areas.

The Skyline Career Development Center was conceived as an opportunity for students with ambition to study beyond the conventional curriculum, especially in the area of career education.

One distinguishing feature of the Center is the provision for extensive preparation in a selected career area without sacrificing college entrance requirements. Another purpose of the Career Development Center program is to provide qualified personnel for employment upon graduation.

Application to the Career Development Center is open to all high school students in the Dallas Independent School District. The only stipulations placed upon applicants are that they have a tentative educational goal and that they have the potential ability to accomplish their goal.

The Career Development Center was conceived as a catalyst for positive change. Curriculum was developed which could have impact throughout the District. The curriculum is unique to the District. It is flexible, enabling students to perform at varying levels and to terminate at different points in any of the offerings.

The curriculum developed was in a behavioral objective format with activities and resources identified for completion of the behavioral objectives. In addition, extensive efforts were made to provide criterion-referenced assessment instruments for each behavioral objective.

Since the Career Development Center was to be a catalyst for positive change, teachers were given the freedom and encouragement to explore new relationships, try new ideas, and investigate innovative teaching strategies.

A secondary goal of the program was to improve student and parental attitudes toward the function of the school. This would be most apparent in the Center's role of guiding students toward developing a marketable skill upon graduation.

Purpose of the Evaluation: The evaluation of the Skyline Career Development Center was implemented to delineate, obtain and provide useful information for judging decision alternatives. To accomplish this, the evaluation staff used the popular Context, Input, Process, Product (CIPP) model developed by Stufflebeam and others.

The context evaluation at the Career Development Center was designed to continue the data base established during the 1972-73 school year. This data base allowed for comparative studies during the school year, as well as longitudinal research. The student and instructor data bases were also needed to inform administrative decision-makers of the composition of the student body and instructional staff at the Career Development Center. In addition, all other areas of evaluation at the Career Development Center required an accurate accounting as to the student and instructor population on a day-to-day basis.

Process Evaluation (derived from the CIPP model) was designed to detect or predict, during implementation stages, defects in the procedural design (including setting) or its implementation. This provided needed periodic feedback to the project manager and other decision-makers, who had the responsibility for continuous control and refinement of plans and procedures.

Product Evaluation (derived from the CIPP model) was designed to measure and interpret student attitudes and performance trends on standardized measurement instruments.

Sample: All students enrolled in the Career Development Center for the 1976-77 school year were involved in the data collection for context evaluation. This included returning students as well as new students. Also included were all instructional staff members during the 1976-77 school year.

All 25 clusters at the Skyline Career Development Center were evaluated during the 1976-77 school year process evaluation.

All or a portion (depending on the design) of the student body and the instructional staff at the Career Development Center during the 1976-77 school year were included in product evaluation.

Students enrolled in the CDC as sophomores during the 1972-73 or 1973-74 school years and as seniors during the 1974-75 or 1975-76 school years served as a data source to study academic performance trends of CDC students. A random sample of DISD students who were not enrolled at the CDC during these years served as a comparison group for the study.

Evaluation Design: The context evaluation at the Career Development Center involved the development and maintenance of an in-depth file on each student and instructor at the Career Development Center. Major student variables included were name and identification number, ethnicity, parental data, and enrollment information. Instructor variables dealt with previous experience, non-teaching experience, and educational background. The major evaluation questions of interest with regard to students and instructors were:

1. What were the characteristics of the student body enrolled in the CDC?
2. What were the characteristics and qualifications of the instructional staff at the CDC?

For process evaluation, the overall strategy was to identify and continually monitor the potential sources of failure in the various programs. Observation schedules with ensuing personal interviews and survey questionnaires provided the information for this part of the evaluation. Included in the process evaluation were examinations of student recruitment, reasons for cluster enrollment, and adequacy of facilities and equipment. These investigations were formalized by the following questions.

3. What were the activities undertaken to recruit students into the CDC?
4. What were students' reasons for enrolling in their clusters?
5. Were the facilities and equipment adequate for the specified curricular activities?
6. To what extent did Skyline instructors use the curriculum developed for the CDC?
7. What method did CDC instructors use in checking off students as having completed the behavioral objectives listed in the curriculum?
8. Did Skyline CDC instructors check off students as having completed behavioral objectives even though they had not met the specified criteria of acceptance?
9. To what extent were students aware of the counseling services available at the CDC?
10. To what extent and in what ways did the guidance counselors aid students?

For product evaluation, the overall strategy was to obtain attitudinal and performance data on a wide variety of topics dealing with the Career Development Center and its operation. Survey questionnaires, student records, and a testing program provided the information for this part of the evaluation. Data were collected throughout the 1976-77 school year as required by each individual study. The major evaluation questions under product evaluation were:

11. What were CDC students' attitudes toward the CDC curriculum, process used by teachers for checking off students as having completed behavioral objectives, and the letter grading system?

12. What is the relationship between participation in the Skyline CDC career education program and performance on standardized tests of academic achievement?

Evaluation Results: The results of the context, process, and product evaluations are summarized below according to question numbers.

Context Evaluation

1. The total student enrollment at the CDC at the end of the first quarter was 2018 students. This represents an 8.1% decrease from the 1975-76 enrollment and resulted when three clusters were separated from the Skyline CDC to form the foundation for three of the four DISD magnet high schools. Sophomore enrollment decreased from 42% in 1975 to 38% during the present school year and represents the first decrease in the percentage of sophomore enrollment in five years. Female students constituted only 36% of the CDC population; however, this significant decrease (from 49% during the 1975-76 school year) can largely be attributed to the loss of four predominately female clusters. White, Black, and Mexican-American students constituted 59, 33, and 8% of the student body, respectively. Eighty-one percent of the students served by the CDC came from outside the Skyline High School attendance zone. Finally, students returning for a second or third year of classes at the CDC constituted 45% of the student body during the 1976-77 school year.

2. Comparison of the 1976-77 Skyline CDC faculty with the CDC faculties of the past years is difficult because most instructors associated with clusters which were moved from Skyline followed the cluster to the new magnet high schools. However, observations concerning the present CDC faculty with respect to age, sex, ethnicity, experience and degrees earned can be made. The majority of the instructors (64.4%) fell in the 30-50 year age bracket; 75.3% of the instructors were males; and 94.5% were Anglo. Nearly 60% of the faculty held either the bachelor's or master's degree while approximately 38% reported that they held no college degree. Approximately 50% of the degreed faculty members received their degrees in the North Texas area. Sixteen instructors reported having no related non-teaching experience; however, these instructors had an average of 11.8 years of teaching experience. The remaining 57 instructors had an average of 11.2 years of related non-teaching experience.

Process Evaluation

3. The recruitment program conducted jointly by the Skyline Career Development Center and four magnet high schools took place in DISD middle and senior high schools during January 10-25, 1977. The format for the recruitment activities differed at the middle and senior high schools.

   At the middle schools the program began with introductory remarks made by a CDC staff member to eighth-grade students at an assembly. A slide-tape presentation describing all CDC and magnet school programs followed the introductory remarks. After the slide-tape presentation, students returned to their regular classes where representatives (teachers and/or students) from the Skyline CDC and the magnet schools made more informal presentations and answered questions. At the senior high schools, in most cases, information was disseminated via an information booth set up near the cafeteria.

4. Twenty-two percent of the 2018 students enrolled at the CDC were randomly chosen to respond to a questionnaire dealing with a variety of topics concerning the program at the CDC. Three hundred nineteen students (73% of the sample) responded to the questionnaire. One item of the survey instrument asked students to indicate the reason they decided to enroll in their cluster. Table 1 presents a summary of the results for this item.

Table 1

Students Reported Reasons for Cluster Selection

Reason for Cluster Selection	Response Frequency	Percentage
I wanted to learn what the cluster was about	77	24.1
I want to make this my career	161	50.5
I am interested in this area as a hobby	31	9.7
I wanted to get out of my home school	5	1.6
My parents wanted me to enroll in this cluster	1	0.3
My first choice was full	15	4.7
My first and second choices were full	7	2.2
No response	22	6.9

Inspection of the table shows that half the respondents were interested in the cluster for career development purposes while about one-fourth were interested in "career exploration" and about 10% were interested in the cluster as a hobby. While the responses indicate that students enroll in the CDC for a variety of reasons it is reassuring that the vast majority of students came to the center for career development or exploration.

5. Observations in all cluster areas showed that the facilities and equipment were adequate for the specified curricular activities. In addition, the observations of the classroom activities showed that:

   (a) The activities of the students appeared to be appropriate for the implementation of the programs;

   (b) Students in the monitored classes were generally on task and involved in the on-going class activities;

   (c) The learning activities observed were evenly divided between exercises involving hands-on activities and the completion of written assignments;

   (d) Most often instruction focused on individual or small group activities;

   (e) Observations usually found instructors monitoring activities and offering assistance to individuals or groups rather than presenting lectures or demonstrations to the entire class; and

   (f) Progress charts were clearly displayed in the majority of the classrooms observed.

6. Interviews with all full- and part-time CDC instructors during February and March showed that 60 (86%) instructors used the CDC curriculum exclusively or most of the time. Ten (14%) instructors used the CDC curriculum on a "sometimes" or "seldom" schedule. The data above included two instances where instructors responded in both categories. This was considered a reasonable response since some instructors taught more than one course.

7. The curriculum developed for the Skyline CDC contains a sequence of behavioral objectives, activities to enable the student to master the behavioral objectives, and evaluation instruments to be used by the instructors to determine whether or not the student can successfully perform the tasks specified in the statement of the behavioral objective. During interviews with all CDC instructors conducted in February and March, instructors were asked to indicate what method or methods they used to determine whether or not students had mastered objectives. The instructors' responses are presented in Table 2.

Table 2

CDC Teachers' Method(s) for Checking off Students as Having Completed Behavioral Objectives

Evaluation Method	No. of Instructors Employing the Method[a]	% of Instructors Employing the Method
Criterion-Referenced Test (alone)	8	11.8
Criterion-Referenced Test and other	11	16.2
Teacher-Made Test (alone)	8	11.8
Teacher-Made Test and other	1	1.5
Criterion-Referenced Test and Teacher-Made Test	24	35.3
Criterion-Referenced Test, Teacher-Made Test, and Other	3	4.4
Other	13	19.1

[a] Some instructors chose not to answer, while in one case the instructor answered in more than one category.

Inspection of the table shows that criterion-referenced tests (used alone or with other evaluation methods) were employed by 46 (68%) instructors, and teacher-made tests or other evaluative procedures were utilized by 22 (32%) instructors.

Evaluation methods in the "other" category included performance tests, application of information to new situations, observation, checking off assignments, individual discussion, standard tests made up by a state board of examiners (Cosmetology), skills test, textbook exams, and weekly reports.

8. During the February and March interviews, instructors were asked: "Do you check off students as having completed behavioral objectives if they have gone through the steps listed in the curriculum bulletin even though they have not met the criteria of acceptance? That is, do you record 100% completion of

behavioral objectives on students' records if students have gone through the procedural steps (or engaged in all activities) listed in the curriculum bulletin, even though the students cannot pass the requirements for completion of behavioral objectives?"

Forty-seven (69%) instructors stated that they did not record 100% completion of the behavioral objectives until students actually passed the criteria of acceptance for completion of behavioral objectives. These instructors pointed out a variety of alternatives they employed when students failed to pass the criteria of acceptance for completion of behavioral objectives. To illustrate these procedures a sample of 5 of the 15 responses are listed below.

(a) "Student goes back and restudies, then retakes the test."

(b) "Student completes optional project to meet acceptable criteria."

(c) "Allow make-up time later in the year."

(d) "Write up activities to help students."

(e) "Make student demonstrate his ability by observation by the instructor."

Twenty-one (31%) instructors stated that they do check off students as having successfully completed behavioral objectives even though the students did not pass the requirements for completion of behavioral objectives. Some of their reasons for doing so were:

(a) "Provided that the student meets the teachers personal minimum level of acceptance."

(b) "If students have gone through the learning plan, then the students have shown that he has met the basic behavioral objective."

(c) "Because there is so much to put into a year."

(d) "Students are checked off for what they have completed but they will not get a grade until they have met the criteria of acceptance."

(e) "If students have some problem in completing activities, the instructor will not let them sit in class and work the whole year on completing one behavioral objective--will give them credit for what they have done."

(f) "If instructor didn't check the students off they would never progress in some cases."

(g) "Depends on the individual student's ability to perform."

(h) "Because the students are slow and they will never perform any better."

Two instructors preferred not to answer the question, and in two cases the instructors answered both in the affirmative and negative.

9. The instrument, sampling and data collection procedures used in questions four and eight were also used to collect data concerning the students' awareness of the counseling services at the CDC. Two hundred twenty-six (70.8%) students indicated that they were aware of these services while 88 (27.6%) were either unaware of or not sure of these services.

10. The 319 students responding to the survey first mentioned in Question 4, were asked to indicate whether or not they were helped by a guidance counselor during the school year and, if so, to indicate the type of help and site (either CDC or home school) where the help was given. If students did not receive assistance from a counselor during the school year they were asked to either indicate a problem area where they could have been helped or to write "no help needed."

In many cases students responded in more than one category. For example, a part-time student may have received aid at the CDC and at his/her home school. Additionally this student may have requested additional aid at either school. Because of the free response format used, the number of responses does not correspond to the number of students responding to the survey. Table 3 presents a summary of the students' responses. Inspection of the table shows that frequencies for the types of assistance rendered were similar for part- and full-time students regardless of the location of the counselor. For example, overall, scheduling of classes as well as academic and/or career counseling were the types of assistance most often rendered to students in all three categories.

The lower portion of the table shows that the majority of students who did not receive help indicated that no help was needed. Most of the remaining students listed class scheduling as well as career and/or academic counseling as the problem areas in which assistance from a guidance counselor would have been useful.

Product Evaluation

11. The sampling procedures, data collection procedures, and instrument discussed in question four were used to collect data dealing

Table 3

Number and Percentage of Students' Responses to: "Ways Assistance (Guidance) Was Provided" and "Ways Assistance (Guidance) Could Have Been Provided."

	CDC Counselor				Home School Counselor	
	Full-Time		Part-Time		Part-Time	
	No. of Responses	%	No. of Responses	%	No. of Responses	%
WAYS ASSISTANCE WAS PROVIDED[a]						
Scheduling Classes	51	34.0	8	23.5	16	36.3
Rescheduling of Cluster/Classes	7	4.7	1	2.9	1	2.3
Transferring between Schools	2	1.3	4	11.8	0	0.0
Cluster Selection	12	8.0	2	5.9	1	2.3
Career and/or Academic Counseling	45	30.0	9	26.6	17	38.6
College Selection	5	3.3	1	2.9	1	2.3
Personal Problems	15	10.0	3	8.8	1	2.3
No Example Given	13	8.7	6	17.6	7	15.9
TOTAL	150	100.0	34	100.0	44	100.0
WAYS ASSISTANCE COULD HAVE BEEN PROVIDED						
Scheduling Classes	5	8.8	0	0.0	3	6.5
Career and/or Academic Counseling	6	10.5	6	10.9	6	13.1
No Help Needed	43	75.4	45	81.8	33	71.7
No Example Given	3	5.3	4	7.3	4	8.7
TOTAL	57	100.0	55	100.0	46	100.0

[a] Twenty-three part-time students received aid at both the CDC and their home schools.

with students' attitudes towards the CDC curriculum, the behavioral objectives check off procedures, and the letter grading system. Seventy-nine percent of the students rated the curriculum as "good" or "excellent" while 18% rated it as "fair" or "poor." Over 50% of the students who gave the curriculum a favorable rating indicated they were most impressed by the curriculum design and implementation procedures. Of those students who gave the curriculum a low rating, 32 (28%) did not indicate what they liked least about the curriculum, 11 (20%) felt that it was difficult to understand, and 7 (12.5%) indicated that the curriculum contained too much written work.

When asked whether or not the process used to check off students' completion of behavioral objectives was appropriate, 73% answered favorably, 17% answered unfavorably, and 10% did not respond. Nearly all respondents who gave a reason for indicating that the check off system was appropriate did so because they felt the process "shows what a student has accomplished" and/or was "fair."

"Needs better organization" and "unfair" were the most frequent reasons listed by respondents who felt the check off process was not appropriate.

In addition to ratings of performance on the behavioral objectives, students at the CDC also receive a letter grade at the end of each quarter. Eighty-four percent of the students responding felt that this grading system was appropriate.

The results obtained in this student attitude survey are consistent with those of all student attitude surveys conducted since the schools inception. In general, students attending the CDC have positive attitudes towards the program and practices at the CDC.

12. Scores on six subtests of the Iowa Tests of Educational Development (ITED) were collected for groups of CDC and non-CDC students. Four groups were utilized in the study: one group consisted of students who attended the CDC from 1972 until 1975 (from sophomore to senior year); one was made up of students who attended the CDC between 1973 and 1976; the third group consisted of a sample of non-CDC students who attended DISD schools from 1972 until 1975; and the fourth group consisted of a sample of non-CDC students in attendance between 1973 and 1976. The students' ninth-grade ITED scores served as the "pretest" while the "posttest" consisted of their twelfth-grade ITED scores.

An analysis of covariance procedure was used to compare the performance of CDC and non-CDC students. Since the homogeneity of regression assumption was not tennable for the mathematics subtest it was not included in the analysis.

Table 4

Adjusted Posttest Means, *F* Values, Degrees of Freedom and E^2 for 1972-75 CDC and Non-CDC Students[a]

Subtest	Y'^b	F	df	p	E^2
Reading Total					
CDC (N=446)	49.1	3.50	936	0.06	.012
Non-CDC (N=509)	47.8				
Language Total					
CDC (N=446)	44.2	1.59	934	0.21	.004
Non-CDC (N=509)	43.4				
Social Studies					
CDC (N=446)	23.1	3.99	944	0.04	.010
Non-CDC (N=509)	22.3				
Science					
CDC (N=446)	25.6	19.10	945	0.00	.019
Non-CDC (N=509)	23.2				
Use of Sources					
CDC (N=446)	24.9	17.37	939	0.00	.016
Non-CDC (N=509)	22.3				

[a] Mathematics scores were not included in the analysis since the homogeneity of regression coefficient assumption was not acceptable for this variable.

[b] Adjusted posttest mean

Table 5

Adjusted Posttest Means, *F* Values, Degrees of Freedom and E^2 for 1973-76 CDC and Non-CDC Students[a]

Subtest	Y'^{b}	F	df	p	E^2
Reading Total					
CDC (N=500)	45.2	0.01	812	0.94	.008
Non-CDC (N=347)	45.2				
Language Total					
CDC (N=500)	40.3	1.45	796	0.23	.000
Non-CDC (N=347)	41.2				
Social Studies					
CDC (N=500)	21.9	8.47	829	0.00	.020
Non-CDC (N=347)	20.7				
Science					
CDC (N=500)	23.9	22.33	828	0.00	.022
Non-CDC (N=347)	21.2				
Use of Sources					
CDC (N=500)	23.2	55.85	820	0.02	.008
Non-CDC (N=347)	21.6				

[a] Mathematics scores were not included in the analysis since the homogeneity of regression coefficient assumption was not acceptable for this variable.

[b] Adjusted posttest mean

Results of the analysis, presented in Tables 4 and 5, show that CDC students' adjusted senior scores were slightly and consistently higher than those of the comparison group on all subtests except 1973-76 'Reading' and 'Language total'. The *F* ratios and probabilities (*p*) indicate that differences in scores for CDC and non-CDC students on the 'Social Studies', 'Science', and 'Use of sources' subtests were statistically significant in both the 1972-75 and 1973-76 groups. Adjusted scores for CDC students were higher than those of non-CDC students.

However, these differences in adjusted scores probably cannot be attributed to the type of school attended. This conclusion is based on the eta (*E*) values (correlation of scores with CDC versus non-CDC training) which were less than .03 on all ITED subtests. For several subtests this figure was less than .01. These consistently low correlations between academic performance and school attended indicate that whether students choose to attend a CDC or a regular high school does not seem to be an important determinant in students' academic scores.

Additional Information:

SE77-044-0-7 1976-77 Evaluation of the Skyline Career Development Center, 1977, Jocelyn Mitchell, Kirk Kirksey, Walter J. Hardi.

76-870 1975-1976 Final Evaluation of the Skyline Career Development Center, 1976, Wayne R. Murray, Leonard J. Reese.

75-59 Final Evaluation Report for the Skyline Career Development Center, 1975, Thomas G. Krueck, 117 pages.

75-558 Results of the Standardized Testing at Skyline Career Development Center, Academic Year 1974-75, 1975, Wayne E. Carter, 28 pages.

75-557 Communit Assessment of the Roles and Potential Goals for Career Education Programs in the Dallas Independent School District, 1975, Richard A. Zepeda, 50 pages.

74-262 Final Product Evaluation Report for the Career Development Center, 1974, Thomas G. Krueck, Robbie G. Davis, 21 pages.

573-34 Final Report on the Process Evaluation at the Career Development Center, 1972, Linda A. Fusco, John R. Clements William T. Denton, 27 pages.

72-62 Final Report on Process Evaluation at the Career Development Center 1972, Linda A. Fusco, John R. Clements, William T. Denton, 25 pages.

SE77-118-3-7

Abstract

Skyline Career Development Center Follow-Up Study

Evaluators: Kirk A. Kirksey
Wayne R. Murray, Ph.D.

Objectives of the Program: The Career Development Center (CDC) is a large educational facility which was opened in the Fall of 1971. During the first five years of operation the center functioned with 28 clusters permitting students to study in one of approximately 50 different work areas. During the 1975-77 school year three clusters were removed and used as a foundation for new magnet schools within the DISD. Thus, there are presently 25 clusters representing approximately 40 different career fields operating at the CDC.

The Skyline Career Development Center was conceived as an opportunity for students with ambition to study beyond the conventional curriculum, especially in the area of career education.

One distinguishing feature of the Center is the provision for extensive preparation in a selected career area without sacrificing college entrance requirements. Another purpose of the Career Development Center program is to provide qualified personnel for employment upon graduation.

Purpose of the Follow-Up Study: The CDC Graduate Follow-Up Study attempted to measure the effectiveness of the career development program by examining former CDC students' present situational conditions as well as their attitudes towards the training received at the CDC.

This abstract is a summary of the report "Skyline Career Development Center Follow-Up Study--Report No. SE77-044-52-7." The report itself consists of two parts. The first part presents the results for the total population while the second part presents the results for each cluster separately. The original report was constructed in this manner so that each cluster coordinator could be presented a copy of the general findings along with the results for his/her particular cluster. Thus, the information contained in the study was designed to be used at several different administrative levels.

Sample: The Skyline Research and Evaluation Department gathered a comprehensive list of approximately 3,000 former students. Addresses of 2,467 (82.2%) were verified and each was mailed a cover letter and a questionnaire on May 21, 1976. The findings presented in this report were based on the 664 (26.9%) questionnaires returned by September 1, 1976. An unusually long time was allowed for the return of the questionnaires because it was necessary for some parents to forward questionnaires to former students who were away at school or in the military.

Research Design: The follow-up study was designed to include all students including: methods of instruction, on-the-job training, teacher competence, teacher concern for student progress. materials and equipment, counseling services, and grading system. Most of these aspects were rated favorably (i.e., 4 or 5 on the five-point continuum) by a majority of respondents.

Respondents were most favorably disposed towards the materials and equipment at the CDC (85.4% responding favorably) and least impressed with the counseling services (56.6% responding favorably) and on-the-job training (47.6% responding favorably). As the composite chart shows, these rating trends hold true for most of the individual clusters. For example, 'materials and equipment' was one of the highest rated aspects for 19 of the CDC clusters, while 'counseling services' was one of the lowest rated educational aspects for 17 of the career clusters.

3. Four hundred and thirteen (62.0%) of the respondents indicated they were employed. Employment rates exceeded 50.0% for 22 of the 25 cluster areas represented. Forty-eight percent of the employed respondents stated their present positions were either related to or somewhat related to their cluster experience. Seventy-two percent stated their cluster work was at least somewhat helpful to them in their present position.

4. Of the 664 respondents, 135 (20.3%) indicated they were unemployed. Rates of unemployemnt ranged from 0.0% for former mathematics students to 52.0% for persons who had attended the World of Fashion career cluster. These unemployment rates do not seem exceedingly high, since 49.0% of the unemployed respondents indicated they were presently students and/or students not seeking employment.

5. Sixty-five percent of the respondents indicated they were continuing their education with most attending either a state university or a junior college. Former students in 20 of the 25 clusters are most often continuing their education in fields directly related to their cluster experience. Students were asked how much their CDC instruction had helped them in their studies and were given the following response choices: very much, much, somewhat, and not at all. Responses were equally split over the high and low end of the scale with 50.0% of the persons responding 'very much' and 'much' and 50.0% answering 'somewhat' or 'none at all.'

6. Employed and student respondents seemed most satisfied with the CDC instructional program since a relatively high percentage (30.2% and 17.1%, respectively) of these persons indicated that no changes were needed at the CDC. Unemployed respondents seemed least satisfied with the CDC instructional program. The most frequent suggested change proposed by this group was "increased on-the-job training" (11.5%).

who had studied at the CDC for at least one year during the period September 1972 through May 1975. In order to facilitate a reasonable rate of return of the questionnaire, an attempt was made to contact each of the former CDC students by telephone prior to the distribution of the survey instrument. The purposes of the prequestionnaire telephone call were to obtain a correct mailing address, to inform students that they would receive a questionnaire, and to encourage the former students to complete and return the survey instrument.

The questionnaire was comprised of six sections. Section 1--General Information--was completed by each respondent. The succeeding sections dealt with situational status (employed, unemployed, student, military, housewife), and respondents were asked to complete all sections which were appropriate. This should be kept in mind since some of the results presented for sections two through five represent a duplicated count (for example, an employed student would complete 'Section 2--Employed' and 'Section 4--Stduent').

Results: The enclosed composite chart provides a general overview of the findings of the 1976 Skyline CDC Graduate Follow-Up Study. The study covers 25 of the 28 Skyline clusters (insufficient data were received for three clusters). Because of the relatively small proportion of the queried population who returned the questionnaire (26%), the reader should be cautious when interpreting the results of the study. Several findings, however, are consistent across clusters and are strong enough to identify trends characteristic of the population.

1. Business and Management was the cluster most frequently attended by respondents. Sixty-four persons indicated they had attended this cluster. Former Business and Management students comprised 9.6% of the total sample. The table below shows percentage frequencies of the five clusters most often attended by respondents.

Clusters Most Frequently Attended by Respondents

Cluster	Absolute Frequency	Percentage of Total Respondents
Business and Management	64	9.6
Performing Arts	49	7.4
Computer Science	44	6.6
Medical/Dental Careers	44	6.6
Man and His Environment	43	6.5

2. Question 1.7 of the questionnaire had respondents rate, on a scale of 1 (poor) to 5 (excellent), seven aspects of the CDC program,

Additional Information:

SE77-118-9-7 Skyline Career Development Follow-Up Study, 1977, Kirk Kirksey, Wayne R. Murray.

SE77-044-3-7 1976-1977 Final Evaluation of the Skyline Career Development Center, 1977, Wayne R. Murray.

76-870 1975-1976 Final Evaluation of the Skyline Career Development Center, 1976, Wayne R. Murray, Leonard J. Reese.

75-559 Final Evaluation Report For the Skyline Career Development Center, 1975, Thomas G. Krueck, 117 pages.

75-555 An Examination of Students Not Returning to Skyline Career Development Center for the 1974-75 School Year, 1975, Dennis L. Moon, 50 pages.

Cluster	Number of Respondents	Highest Rated CBC Aspects	Lowest Rated CBC Aspects	% Employed	% employed in positions which are related or somewhat related to cluster experience.	Question 2.9: How muc your training at th CBC help you in your w	
						% responding very much	% respon much
Visual Arts	39	Materials and equipment Teacher concern stu. prog.	On-the-job training Counseling	48	40	15	30
Child Related Professions	38	Materials and equipment Teacher competence	Counseling Grading system	68	36	25	7
Cosmetology	24	Materials and equipment Teacher concern stu. prog.	On-the-job training* Counseling	66	66	37	13
English/Journalism	19	Materials and equipment Teacher competence	On-the-job training* Counseling	75	33	0	21
Graphics Communications	18	Materials and equipment Teacher competence	Grading system Counseling	66	50	61	8
World of Languages	16	Teacher competence Teacher concern stu. prog.	On-the-job training* Counseling	68	45	9	18
Man and His Environment	43	Teacher concern stu. prog. Teacher competence	Grading system On-the-job training*	85	32	7	21
Mathematics	9	Teacher competence Teacher concern stu. prog.	On-the-job training* Counseling	66	100	0	25
Performing Arts	49	Teacher competence Materials and equipment	On-the-job training Grading system	51	19	12	8
Science	28	Materials and equipment Teacher competence	Counseling On-the-job training*	60	10	5	0
Aeronautics	27	Methods of instruction Teacher competence	Counseling Grading system	55	56	33	11
Architectural Careers	19	Materials and equipment Methods of instruction	Counseling On-the-job training	78	53	33	40
Business and Management	64	Materials and equipment Grading system	Counseling On-the-job training	82	88	67	78
Computer Science	46	Teacher competence Materials and equipment	On-the-job training Grading System	65	81	41	17
Construction	17	Teacher competence Teacher concern stu. prog.	Grading system Materials and equipment	58	60	30	50
Medical/Dental	44	Materials and equipment Teacher competence	On-the-job training Counseling	59	62	23	7
Electronic Science	25	Materials and equipment Teacher competence	On-the-job training Grading system	72	49	22	22
World of Fashion	19	Materials and equipment Teacher competence	On-the-job training Methods of instruction	42	50	37	25
Horticulture	16	Materials and equipment Teacher competence	Counseling Grading system	87	61	33	28
Interior Design	9	Materials and equipment Counseling	Teacher competence Teacher concern stu. prog.	66	16	16	16
Photographic Arts	25	Materials and equipment Teacher competence	On-the-job training Grading system	52	46	15	38
Television Production	20	Teacher competence Teacher concern stu. prog.	On-the-job training* Counseling	60	50	25	0
Transportation	28	Teacher concern stu. prog. Materials and equipment	On-the-job training Counseling	78	65	34	10
Food Service and Management	7	Teacher concern stu. prog. Materials and equipment	Counseling On-the-job training	71	60	20	5
Manufacturing	12	Materials and equipment Teacher competence	On-the-job training Grading system	58	71	57	1

* Students in these clusters not offered OJT (see Skyline R & E Report 575/76-12).

did rch? ing	% Unemployed	% of unemployed persons who actively sought employment.	Most Common Reason(s) Given for Unemployment	% Students	Type of Institution Most Frequently Attended	Question 4.8: To what extent has your CDC instruction helped you in your studies?		Most Frequent Major Course of Study
						% responding very much	% responding much	
	38	28	student-did not seek employment	79	State University	45	51	Visual Arts
	31	50	student	73	State University	23	18	Child Related Professio
	29	71	student-other	16	State University Junior College	25	0	Business and Management Medical/Dental
	15	33	stu.; stu.-skills not compat, housewife-other	73	State University	42	58	English/Journalism Man and His Environment
	16	66	student	61	State University	0	9	Business and Management
	18	66	student	100	State University Junior College	31	25	World of Languages Man and His Environment
	11	40	student-did not seek employment	83	State University	19	33	Man and His Environment
	33	0	student-did not seek employment	88	State University Private University	25	25	Mathematics
	16	28	student-did not seek employment	85	State University	23	28	Performing Arts
	17	22	student-did not seek employment	92	State University	34	30	Science
	2[illegible]	22	student	44	State University	0	16	Man and His Environment
	15	23	student	63	Junior College	20	3[illegible]	Architectural Careers
	15	40	student	43	Junior College	28	32	Business and Management
	25	72	student	61	Junior College	22	29	Computer Science
	35	33	student	41	Junior College	42	14	Construction
	25	27	student	70	State University	22	22	Medical/Dental
	4	0	other	68	Junior College	35	17	Electronic Science
	52	60	no vacancies-student; student-other	68	State University	38	15	World of Fashion Business and Management
	0	-	-	62	Private University	20	20	Horticulture
	11	100	no vacancies-student	73	Private University	14	28	Interior Design
	28	28	student	56	State University	18	28	Performing Arts Business and Management
	15	33	did not seek employment, no vacancies-student;other	75	State University	40	6	Television Production
	3	0	student	42	Junior College	25	25	Business and Management
	29	50	student; did not seek employment	37	Junior College	25	50	Food Service
	23	66	stu.-did not seek employment, stu.-no vacancies	41	Junior College	40	0	Manufacturing

75-558

Abstract

Results of the
Standardized Testing at the
Skyline Career Development Center
Academic Year 1974-75

Evaluators: Wayne E. Carter and Walter G. Hardi

Objectives of the Program: The Skyline Career Development Center (CDC) is a product of the Dallas Independent School District (DISD) commitment to Career Education. Its 28 clusters, representing different career areas, afford modern facilities and equipment similar to that found in the various careers for which the students are being trained.

The curricula developed for the Center may have had impact throughout DISD. It was meant to be unique to DISD and, wherever possible and feasible, to be flexible, enabling students to perform at varying levels and to terminate at different points in any of the offerings. It hoped to foster more favorable attitudes toward school and encourage students to select and develop career skills.

Conceiving of Skyline CDC as a catalyst for positive change, extensive efforts have been made to obtain standardized assessment instruments.

Purpose of the Evaluation: The measurement profiles as a part of product evaluation (derived from the CIPP model) were designed to measure and interpret student performance at the conclusion of the project's fourth year of operation as well as during the school year. The evaluation was to allow for a change process with alternative options available, depending on the results of the evaluation findings.

Sample: Included in this measurement profile of product evaluation were all or a portion (depending on the design) of the students enrolled in the Skyline CDC during the 1974-75 school year.

Evaluation Design: The overall strategy was to obtain performance data in a variety of career areas by utilizing standardized norm-referenced tests. Data were collected by administering the Armed Services Vocational Aptitude Battery (ASVAB) November 10, 1974, and by administering specialized norm-referenced tests in specific cluster-skill areas near the end of the school year. The two major evaluation questions were:

1. What are the results of the ASVAB testing for the 1974-75 school year?
2. What is the student performance on appropriate standardized tests?

Evaluation Results:

1. The percentile scores on the ASVAB generally reflected the high scores expected from different clusters. For example, English students scored high on Word Knowledge; Mathematics students scored high on Arithmetic Reasoning; Architectural Drafting students, on Space Perception; Electronics students, on Mechanical Comprehension and Electronics Information; Transportation students, on Tool Knowledge and Automotive Information, etc., as reflected in the table below. The scores also raised several questions regarding the potential failure of some students due to a lack of aptitude in areas related to the cluster they are enrolled in and the need for additional counseling.

Median Percentile Scores for
Clusters in Specific Test Areas

Cluster	Test	Median Percentile Scores		
		1972-73*	1973-74**	1974-75**
Aesthetics	Space Perception	62	68	68
English	Word Knowledge	83	73	70
	Arithmetic Reasoning	53	60	63
	Coding Speed	38	54	93
Graphics	Word Knowledge	41	48	48
	Arithmetic Reasoning	40	40	40
Languages	Word Knowledge	56	67	70
	Coding Speed	50	70	94
Man and His Environment	Word Knowledge	63	67	73
	Arithmetic Reasoning	49	62	65
Mathematics	Word Knowledge	63	73	84
	Arithmetic Reasoning	75	80	80
	Space Perception	81	74	76
Plastics	Tool Knowledge	39	34	22
	Mechanical Comprehension	53	38	18
	Shop Information	37	35	17
Science	Word Knowledge	63	83	73
	Arithmetic Reasoning	75	80	80
	Space Perception	81	80	80
	Mechanical Comprehension	79	73	73
Aeronautics	Mechanical Comprehension	59	61	61
	Electronics Information	60	71	71
	Space Perception	55	62	62
	Shop Information	64	68	68
	Tool Knowledge	74	62	68
	Automotive Information	61	56	56

Median Percentile Scores (cont'd.)

Cluster	Test	Median Percentile Scores 1972-73*	1973-74**	1974-75**
Architectural Drafting	Word Knowledge	50	61	61
	Arithmetic Reasoning	49	60	60
	Space Perception	68	80	74
Business	Word Knowledge	41	36	36
	Coding Speed	53	55	75
Construction	Mechanical Comprehension	49	50	44
	Electronics Information	26	46	43
	Space Perception	30	40	45
	Shop Information	37	57	48
	Tool Knowledge	52	62	56
Health Careers	Word Knowledge	50	48	48
	Arithmetic Reasoning	40	45	40
Electronics	Mechanical Comprehension	66	67	61
	Electronics Information	89	90	86
	Space Perception	62	62	56
Fashion	Word Knowledge	28	39	27
	Arithmetic Reasoning	22	26	23
Horticulture	Word Knowledge	50	62	73
	Arithmetic Reasoning	44	45	48
	Space Perception	52	56	59
Interior Design	Word Knowledge	41	37	48
	Arithmetic Reasoning	49	31	30
	Space Perception	49	36	45
Photography	Word Knowledge	56	61	48
	Arithmetic Reasoning	57	59	40
	Space Perception	81	62	56
Television Arts	Word Knowledge	56	61	48
	Arithmetic Reasoning	42	60	40
	Space Perception	58	62	56
	Mechanical Comprehension	66	61	38
	Electronics Information	60	65	39
Transportation	Tool Knowledge	85	62	62
	Mechanical Comprehension	59	61	56
	Shop Information	64	74	68
	Automotive Information	77	68	80
	Space Perception	36	45	45
	Electronics Information	77	52	65

Median Percentile Scores (cont'd.)

Cluster	Test	Median Percentile Scores		
		1972-73*	1973-74**	1974-75**
Environmental Control	Space Perception	49	59	45
	Shop Information	88	54	42
	Tool Knowledge	85	62	45
	Mechanical Comprehension	66	47	50
Food Services	Word Knowledge	28	21	27
	Arithmetic Reasoning	27	23	23
Manufacturing	Space Perception	36	40	56
	Shop Information	53	59	61
	Mechanical Comprehension	53	44	50
	Tool Knowledge	61	45	62

* National inductee norms used
** National high school norms used

2. Consideration of the test results and the comprehensiveness of the battery, suggests that the ASVAB offers several advantages which will supplement the system-wide testing program. Student test scores provide both students and counselors with information on various vocational aptitudes. Furthermore, the test administration, scoring, and result-reporting are without cost to the District. Moreover, national high school norms are provided for both male and female students so that counselors can more meaningfully discuss scores with students. Finally, civilian-related occupation fields are provided for each aptitude area.

3. The accumulation of two years of raw score data on 782 students has resulted in the availability of repeated measures on students that are enrolled for the second or third year in the Skyline CDC. Since these data were gathered as a result of the October, 1973, and November, 1974, administrations of the ASVAB, they are indicative of student progress during the academic year 1973-74.

The analysis of these data revealed some interesting results:

a. The number of tests on which cluster students made significant gains varied from 8 (Aeronautics cluster) to 0 (Man and His Environment, Plastics, Interior Design, and Photography clusters).

b. The number of clusters which made significant gains on test scores varied from 17 (Coding Speed Test) to 3 (Arithmetic Reasoning).

4. Two concerns were raised about the ASVAB testing program that are relevant to the decision-making process. The concerns were:

a. It appeared that none of the tests of which the ASVAB is constructed were appropriate to the Child Care and Cosmetology clusters. In addition, scores on the ASVAB appeared to provide little useful information with respect to the Graphics, Man and His Environment, Health Careers, Fashion, and Food Services clusters, since the only tests relevant to these clusters were the Word Knowledge and Arithmetic Reasoning Tests. It would therefore seem reasonable to continue utilizing the ASVAB only in those clusters for which the battery has face validity.

b. It would appear that there were students enrolled in clusters who have a low aptitude in areas related to that cluster. Hence, it would be most advantageous to administer the ASVAB early enough in the academic year to provide information for in-depth counseling for students whose aptitude for a given area is indicative of potential failure in that area. Another alternative would be the administration of the ASVAB in the spring,prior to enrollment, thereby allowing use of test results to assist potential Skyline CDC students in making more prudent decisions regarding cluster selection.

5. Standardized tests were also administered to 14 clusters in 32 instructional areas. Although there were several problems inherent in the norming process which made some of the tests less than optimally desirable as applied to Skyline CDC students, the test results are summarized below. The reader is urged to consult the individual tables interspersed in the report before attempting to draw conclusions.

Tests for which national norms were available were administered to students in 10 clusters. The number of students who scored at or above the 90th percentile for each cluster is presented in the table below.

Number of Students Scoring at or above
the 90th Percentile on Standardized Tests

Cluster (n)	Standardized Test	Number/Percent of Students Scoring at or above 90th Percentile
Aesthetics (101)	Graves Design Judgement Test	21/21
Advanced English (23)	Cooperative English Tests	5/22
World of Languages	MLA Cooperative Foreign Language Tests	
(34)	Reading	14/41
(31)	Writing	17/55
(27)	Listening	10/37

Number of Students (cont'd.)

Cluster (n)	Standardized Test	Number/Percent of Students Scoring at or above 90th Percentile
Man and His Environment (78)	Gordon Survey of Personal Values	
	Practical Mindedness	2/3
	Achievement	17/22
	Variety	2/3
	Decisiveness	16/21
	Orderliness	6/8
	Goal Orientation	17/22
(78)	Gordon Survey of Interpersonal Values	
	Support	6/8
	Conformity	2/3
	Recognition	2/3
	Independence	8/10
	Benevolence	9/12
	Leadership	13/17
Advanced Mathematics (19)	Sequential Test of Educational Progress	13/68
Business (65)	SRA Clerical Aptitudes Test	5/7
(141)	Nation-Wide Every Pupil Achievement Test: Typing I	5/4
(139)	Minnesota High School Achievement Test in Bookkeeping	0/0
Computer Science (54)	SRA Computer Programming Aptitude Battery	0/0
World of Fashion (67)	Emporia Clothing Test	3/4
Interior Design (29)	Graves Design Judgement Test	1/3
Food Services (40)	Emporia Foods Test	0/0

The appropriate Short Occupational Knowledge Test was administered to students in the Transportation, World of Construction, and World of Manufacturing clusters. The number of students that scored at the specialist level on each test is presented in the table below.

Students Scoring at Specialist Level on the Short Occupational Knowledge Test

Cluster(m)	Standardized Test	Number/Percent of Students Scoring at Specialist Level
Transportation (46)	Auto Mechanics	9/20
Construction		
Carpentry (28)	Carpenters	4/14
Mill and Cabinet (9)	Carpenters	0/0
Plumbers (10)	Plumbers	10/100
Electricians (13)	Electricians	0/0
Manufacturing		
Machine Shop (18)	MAchinists	0/0
Welding (18)	Welders	7/39
Drafting (8)	Draftsmen	0/0
Tool and Die (3)	Tool and Die	0/0

6. Adequate standardized instruments were not available for the remainder of the clusters. Since the curricula of many of these clusters are considered "exportable and saleable," consideration should be given to development of adequate evaluation instruments.

Additional Information:

75-558 Results of the Standardized Testing at the Skyline Career Development Center, Academic Year 1974-75, 1975, Wayne E. Carter, Walter G. Hardi, 100 pages.

For Further information regarding the DISD career development programs (Skyline, Adamson, Pinkston, Edison), see pages 1478 to 1496; 1504 to 1539.

Abstract

Evaluation of the Adamson Career Development Center for 1976-77

Evaluator: Stephen W. Hebbler

Objectives of the Program: The Adamson Career Development Center (CDC) is a part of the Dallas Independent School District's commitment to career education. The Center presently offers training in two cluster areas: Automotive Technology and Child Related Professions. The curricula to be implemented in the clusters are those developed at the Skyline Career Development Center. The major goals and objectives of the clusters are stated in their respective curricula.

The Adamson CDC provides extensive training in the two cluster areas without sacrificing college entrance requirements. The main emphasis of the training is on marketable skills, but academics are not relegated to a subsidiary level of importance. The curriculum is sufficiently flexible and individualized to enable students to proceed at varying paces and to exit at different points during the training. The training program simulates job settings as far as possible. The CDC instructors have had extensive experience in their field and the instructional facilities and equipment are modern and similar to those currently found in business and industry.

Purpose of the Evaluation: The evaluation of the Adamson CDC was designed to: (a) describe the context in which the CDC program was operating during the 1976-77 school year, (b) describe some of the processes involved in implementing the CDC program during the year, and (c) examine several outcomes of the CDC program. A set of evaluation questions focusing on the aims above were written and data pertaining to those questions were collected during the year. The major evaluation questions investigated within the study are listed below.

1. Were facilities, supplies, and materials necessary for the instructional process obtained?
2. Was an adequate staff secured to implement the instructional program?
3. What were the major characteristics of the student population at the CDC?
4. Was a recruitment program established and implemented in order to obtain students with sincere interests in the CDC cluster areas?
5. What were the entrance requirements for participation in the CDC clusters?

6. Was guidance provided to students interested in obtaining employment or pursuing further education in their fields of interest?

7. Were students provided with opportunities to learn about work through first-hand experience such as:

   a. Laboratory experiences,
   b. Field trips, and
   c. Unpaid internships?

8. Was the prescribed instructional program (curriculum) implemented within the classroom?

9. Did students demonstrate improved knowledge in their cluster areas during the school year?

10. Did students demonstrate improved attitudes toward work during the school year?

11. Was an active advisory committee representing the CDC clusters formed to provide assistance in curriculum development, enlist the aid of business in providing work experiences for students, disseminate the CDC concept to the business community and provide classroom resource personnel?

Sample: The sample utilized in the evaluation consisted of all students and instructors at the Adamson CDC. Questions 1, 2, 4 through 8, and 11 involved the CDC instructors while students provided the data necessary to answer questions 3, 9, and 10.

Evaluation Design and Procedure: During September, 1976, each of the CDC instructors completed a Materials/Equipment Inventory. Data from the inventory were tallied and summarized for presentation. Teachers' responses on the items pertaining to students' attitudes and difficulties, and comments concerning the operation of the CDC were also summarized for use in the evaluation.

The CDC instructors also completed a Professional Personnel Inventory during September. That instrument was designed to collect data concerning educational background, teaching experience, and cluster-related non-teaching experience for each instructor.

The facilities available in each of the CDC clusters were rated on November 24 using the Facilities Survey.

During October, each student filled out a Student Information Sheet. Information gathered using this instrument included student identification number, cluster area, sex, race, grade level, and full/part-time status.

All CDC students were administered the Everyday Skills Tests: Reading and Mathematics (EST) on October 26. The EST is a criterion-referenced test designed to assess students' mastery of operational-level performance objectives in reading and mathematics. Scores for individual students as well as overall class results were reported to each CDC instructor during the month of November.

The Career Maturity Inventory (CMI) was administered to students on a pretest-posttest basis. The pretest was administered in November; the posttest in May. The CMI is a 50-item attitude instrument designed to elicit the feelings, subjective reactions, and dispositions that the individual holds toward making a career choice and entering the world of work. The following five attitudinal clusters are surveyed by the CMI:

1. involvement in the career choice process,
2. orientation toward work,
3. independence in decision making,
4. preference for career choice factors, and
5. conceptions of the career choice process.

The CMI scores were compiled for presentation in tabular form by cluster and grade and students' overall pre- to posttest attitude change was investigated using a matched-pairs *t* test.

The progress of students in the CDC curriculum was ascertained by examining the behavioral objective percentage completion chart for each class. These data were put into tabular form for presentation in this report.

Several of the evaluation questions were investigated through informal interviews with CDC instructors and spontaneous observations in the CDC clusters.

Evaluation Results: The results listed below correspond, by number, to the evaluation questions presented earlier.

1. Data collected using the Facilities Survey are presented in Table 1. The ratings were excellent with only two minor problems observed. The Automotive Technology cluster could have used more bulletin board area and, in the Child-Related Professions, the room sometimes became uncomfortably warm. The evaluator felt that both cluster areas at the CDC were visually appealing, comfortable, and conducive to learning. Instructors in both the Automotive Technology cluster and the Child-Related Professions cluster reported that all needed materials were available for instruction. Table 2 presents the categories of materials and the responses given by the instructors.

2. A review of the CDC instructors' educational backgrounds, teaching experience, and cluster-related non-teaching experience indicated that the instructional positions had been filled with qualified personnel. One of the three instructors held a master's degree and another had completed some graduate work. The Automotive

Table 1

Evaluation of the Adamson
CDC Facilities[a]

Item	Cluster	
	Automotive Technology	Child-Related
Lighting	4	4
Temperature	4	3
External Noise	4	4
Walls (condition)	4	4
Floors (condition)	4	4
Bulletin Boards	3	4
Desks and Tables		
(condition)	4	4
(quantity)	4	4
(proper fit)	4	4
Floor Space	4	4
Room Colors	4	4
Classroom Storage	4	4
General Rating	4	4

[a] A rating of 4 indicates very good condition or adequate quantity, 1 indicates very poor condition or inadequacy.

Table 2

Availability of Materials: Response by
Cluster for Each Category

Category	Clust[illegible]	
	Automotive Technology	Child-Related
Textbooks/Manuals	Yes	Yes
Study Aids/Workbooks	Yes	Yes
Audio-Visual Materials	Yes	Yes
Curriculum Guide	Yes	Yes

NOTE--"Yes" indicates availability.

Technology instructor had 13 years of professional experience in Automotive Repair as well as eight years of teaching experience. Discussions with CDC instructors and observations in the classrooms indicated that the instructors took an interest in the students and were well prepared in their professions.

3. A description of the student body broken down by cluster is presented in Table 3. Males accounted for 58% of the CDC student population; females 42%. The ethnic makeup at the CDC was 42% Anglo, 44% Black, and 13% Mexican-American. There was one Oriental student in attendance. Thirty-six percent of the students were tenth graders, 40% were eleventh graders, and 24% were in the twelfth grade. Three of the CDC students attended on a part-time basis.

   Two student difficulties were noted by CDC instructors. It was reported that the curriculum in Child-Related Professions was difficult for students who had poor reading abilities and that some of the third-year students (HECE students) from that cluster had experienced problems in getting jobs in the field.

   Results on the EST are presented in Table 4. The overall mastery level in reading was high in both clusters. However, the achievement level in mathematics was considerably lower than the demonstrated reading achievement. Additionally, there were a few students whose individual mastery scores indicated a need for remedial reading and mathematics instruction.

4. Interviews with the CDC instructors revealed that they did not think that the Magnet School/CDC recruiting effort that was carried on system-wide during the spring had been helpful in recruiting interested students for the Adamson CDC. The Child-Related cluster instructors did their own recruiting from the ninth- and tenth-grade homerooms at Adamson and had about 35 students interested in that cluster for the 1977-78 school year. Most of the recruiting for the Automotive Technology cluster was by word of mouth. The instructor reported that he had enough applicants for next year but that it was necessary to take several tenth graders (students usually begin Automotive Technology in the eleventh grade).

5. Interviews with the CDC instructors revealed that students who preregistered for enrollment in the CDC programs were screened individually before classes began. Criteria for participation in the Automotive Technology cluster were low absenteeism and a record of good discipline. The Child-Related cluster instructor utilized the criteria above and also considered previous academic performance.

6. Of five seniors who graduated from the Child-Related cluster, two were going to college in related fields, one was getting married and two were undecided. The school counselor had assisted one of the college-bound students in obtaining a grant.

Table 3

Student Population Profile: Number of Students in Each Category by Cluster

Category	Cluster		
	Automotive Technology	Child-Related	Total
SEX			
Female	0	26	26
Male	35	1	36
RACE			
Anglo	21	5	26
Black	10	17	27
Mexican-American	3	5	8
American Indian	0	0	0
Oriental	1	0	1
GRADE			
Tenth	9	13	22
Eleventh	14	11	25
Twelfth	12	3	15
PART-/FULL-TIME STATUS			
Full-time	35	24	59
Part-time	0	3	3
TOTAL	35	27	62

Table 4

Results on the Everyday Skills Tests: Reading and Mathematics
Percentage of Students by Cluster Meeting Objectives

Objective[a] Number	Reading		Mathematics	
	Automotive Technology (N=25)	Child-Related Professions (N=34)	Automotive Technology (N=25)	Child-Related Professions (N=34)
1	100	96	94	96
2	100	96	88	80
3	97	96	100	84
4	94	92	79	92
5	97	96	79	68
6	97	96	68	84
7	97	92	65	48
8	100	96	50	40
9	97	92	74	72
10	100	96	79	60
11	85	88	91	68
12	88	92	62	48
13	82	92	59	32
14	79	68	50	32
15	59	64	32	20

[a] The EST objectives are listed in the Context Report, Appendix E (see Additional Information)

Twelve seniors graduated from the Automotive Technology cluster. Two students were planning to work full-time in the automotive field, one was accepted at the General Motors Institute, one was planning to attend Lincoln Technical Institute, one student was going to major in an automotive curriculum in college, and one was going into military service in the automotive field. Five students were undecided. The student planning to attend college received assistance from the school counselor in obtaining a grant.

7. All students at the Adamson CDC were provided with opportunities to gain first-hand experience in their cluster areas. Each student enrolled in the Child-Related cluster worked in the CDC nursery school at least one day a week. The nursery school is similar to those found in the community, providing students with realistic experiences. Ten of the 12 second- and third-year students participated in unpaid internships in nursery schools, preschools, or public school kindergartens. The students worked at least two mornings a week. Five students worked part-time in the child-care field.

   Child-Related cluster students made field trips to St. Paul's Hospital and to the Dallas Society for Crippled Children.

   Students in the Automotive Technology cluster had opportunities to participate in many different hands-on experiences in the area of automotive servicing. Most of the instructional modules during this time involved both theoretical and applied work. Observations made by the evaluator at the CDC indicated that all students were participating in hands-on experience.

   Six Automotive Technology students worked part-time in the automotive service field. One student was employed by a front-end shop, one by an alternator/generator shop, and three students worked in service stations or general repair garages. One of the students worked as an assistant in the Adamson Automotive Technology shop under a Comprehensive Employment and Training Act grant.

8. Observations made in both the Automotive Technology and Child-Related clusters at Adamson revealed that the CDC curriculum was being implemented in those clusters. Interviews with teachers and inspection of students' records and mastery charts confirmed the results observed. The Skyline CDC curriculum was being utilized in both clusters.

   Activities in the Child-Related cluster ranged from lecture-discussion sessions on particular topics to independent work by individual students. Visits to the CDC by the evaluator indicated that the Child-Related students worked well independently. During some observations, several activities were being carried on at the same time. For example, a group of students were discussing a curriculum topic with the instructor, other students were working on individual objectives, and still others were working with young children in the nursery under the direction of the nursery school instructor.

During all the observations made in the Adamson Automotive Technology cluster, the students were busy working on automobiles or automotive assemblies. The evaluator observed activities ranging from tune-ups and brake work to major engine overhauls. The instructor circulated throughout the shop closely supervising students' work and answering questions.

9. Instructors in both of the CDC clusters reported that most of the students had progressed satisfactorily in the CDC curriculum during the school year. The Child-Related cluster instructor reported that two second-year students were outstanding but that one first-year student had had greater than average difficulty with the curriculum due to reading problems (that student did, however, excell in the practical aspects of the curriculum). Table 5 presents a compilation of the number of behavioral objectives completed by students at the Adamson CDC during the 1976-77 school year.

Table 5

Number of Adamson CDC Students Completing Behavioral Objectives in Their Cluster Areas

	Number of Objectives Completed[a]						
Cluster	0-5	6-10	11-20	21-30	31-40	41-50	N
Child-Related							
First Year	1	5	12	0	0	0	18
Second Year	4	8	0	0	0	0	12
Auto Technology							
First Year	0	0	0	1	2	19	22
Second Year	0	2	6	4	1	0	13

NOTE: The number of objectives completed should not be compared across cluster areas nor for first- and second-year students. The particular cluster area and level should be consulted in order to make further evaluative judgements from the data.

[a] To have completed an objective, the student must have received a "100%" on the behavioral objective percentage completion chart. Many students have partially completed other objectives.

Table 6

Means, Standard Deviations, *N*, and Mean Differences on the CMI for Students at the Adamson CDC

Cluster	*N*	Pretest *M*	Pretest *SD*	Posttest *M*	Posttest *SD*	Mean Difference
CHILD RELATED						
Grade 10	10	28.8	5.3	30.9	6.4	+2.1
Grade 11	9	35.0	4.2	36.2	3.1	+1.2
Grade 12[a]	-	-	-	-	-	-
All Grades	20	31.9	5.6	33.1	5.8	+1.2
AUTOMOTIVE TECHNOLOGY						
Grade 10	10	32.1	5.7	33.2	5.3	+1.1
Grade 11	11	34.3	2.6	32.4	4.1	-1.9
Grade 12	8	30.4	4.0	34.0	4.9	+3.6
All Grades	29	32.5	4.6	33.1	4.8	+0.6
BOTH CLUSTERS						
Grade 10	20	30.5	5.7	32.1	6.0	+1.6
Grade 11	20	34.6	3.4	34.1	4.2	-0.5
Grage 12	9	30.9	4.1	33.2	5.1	+2.3
MORNING STUDENTS	26	34.2	4.4	34.1	4.8	-0.1
AFTERNOON STUDENTS	23	30.0	4.7	32.0	5.5	+2.0[b]
ALL STUDENTS	49	32.2	5.1	33.1	5.2	+0.9

[a] insufficient data

[b] t(matched-pairs) = 2.21, df = 22, $p < .05$

10. Students' posttest attitude scores on the Career Maturity Inventory (see Table 6) were somewhat below the national average at each grade level (national norm for grade: 10 = 35.3; 11 = 36.0; 12 = 37.2). The national percentile rank was 30 for tenth-grade students, 35 for eleventh graders and 20 for students in the twelfth grade. According to the *CMI Administration and Use Manual*, a percentile rank at or above the twenty-fifth percentile indicates that students are progressing normally in their career development.

    Results of the *t* test performed on the pre- and posttest scores did not reveal statistically-significant changes in students' attitudes overall during the school year (*t*(matched-pairs) = 0.73, *df* = 48, $p > .05$). The observed pre- to posttest change was .9 (raw-score points) which approximates the average gain per year experienced by the CMI norm group. When the morning and afternoon students were considered separately, however, some interesting results emerged. While the average attitude scores for morning students were approximately equal on the pretest and the posttest, afternoon students exhibited a significant positive attitude change (*t*(matched-pairs) = 2.21, *df* = 22, $p < .05$) Although the differences in gain for morning and afternoon students cannot be explained using the present evaluation design, this variable should, perhaps, be considered in subsequent evaluations of career education projects.

11. Instructors in the Child-Related cluster reported that the advisory committee, which also works with the Skyline CDC, had provided work stations (internships) for CDC students and had suggested other places where work stations might be secured. It was reported that classroom resource personnel were available to the CDC. The only problem noted by the Child-Related cluster instructors was that the advisory committee meetings were sometimes held at inconvenient times. The Automotive Technology instructor reported that he had little contact with the Skyline Transportation cluster advisory committee.

Additional Information:

SE77-111-9-7 Evaluation of the Adamson Career Development Center,
1977, Stephen W. Hebbler.

Abstract

Evaluation of the Pinkston Career Development Center (1976-77)

Evaluator: Stephen W. Hebbler

Objectives of the Program: The Pinkston Career Development Center (CDC) is a part of the Dallas Independent School District's commitment to career education. The Center offers training in two cluster areas: Automotive Technology and The World of Fashion (Fashion Design and Apparel Construction). The curricula to be implemented in the clusters are those developed at the Skyline Career Development Center. The major goals and objectives of the clusters are stated in their respective curricula.

The Pinkston CDC provides extensive training in the two cluster areas without sacrificing college entrance requirements. The main emphasis of the training is on marketable skills, but academics are not relegated to a subsidiary level of importance. The curriculum is sufficiently flexible and individualized to enable students to proceed at varying paces and to exit at different points during the training. The training program simulates job settings as far as possible. The CDC instructors have had extensive experience in their fields and the instructional facilities and equipment are modern and similar to those currently found in business and industry.

Purpose of the Evaluation: The evaluation of the Pinkston CDC was designed to: (a) describe the context in which the CDC program was operating during the 1976-77 school year, (b) describe some of the processes involved in implementing the CDC program during the year, and (c) examine several outcomes of the CDC program. A set of evaluation questions focusing on the aims above were written and data pertaining to those questions were collected during the year. The major evaluation questions investigated within the study are listed below.

1. Were facilities, supplies, and materials necessary for the instructional process obtained?
2. Was an adequate staff secured to implement the instructional program?
3. What were the major characteristics of the student population at the CDC?
4. Was a recruitment program established and implemented in order to obtain students with sincere interests in the CDC cluster areas?
5. What were the entrance requirements for participation in the CDC clusters?

6. Was guidance provided to students interested in obtaining employment or pursuing further education in their fields of interest?

7. Were students provided with opportunities to learn about work through first-hand experience such as:

   a. Laboratory experiences in realistic work stations,
   b. Field trips and observations in actual work settings,
   c. On-the-job training?

8. Was the prescribed instructional program (curriculum) implemented within the classroom?

9. Did students demonstrate improved knowledge in their cluster areas during the school year?

10. Did students demonstrate improved attitudes toward work during the school year?

11. Was an active advisory committee representing the CDC clusters formed to provide assistance in curriculum development, enlist the aid of business in providing work experiences for students, disseminate the CDC concept to the business community and provide classroom resource personnel?

Sample: The sample utilized in the evaluation consisted of all students and instructors at the Pinkston CDC. Questions 1, 2, 4 through 8, and 11 involved the CDC instructors while students provided the data necessary to answer questions 3, 9, and 10.

Evaluation Design and Procedure: During September, 1976, each of the CDC instructors completed a Materials/Equipment Inventory. Data from the inventory were tallied and summarized for presentation. Teachers' responses on the items pertaining to students' attitudes and difficulties and comments concerning the operation of the CDC were also summarized for use in the evaluation.

The CDC instructors also completed a Professional Personnel Inventory during September. That instrument was designed to collect data concerning educational background, teaching experience, and cluster-related non-teaching experience for each instructor.

The facilities available in each of the CDC clusters were rated on November 24 using the Facilities Survey.

During October, each student filled out a Student Information Sheet. Information gathered using this instrument included student identification number, cluster area, sex, race, grade level, and full/part-time status.

All CDC students were administered the Everyday Skills Tests: Reading and Mathematics (EST) on October 26. The EST is a criterion-referenced test designed to assess students' mastery of operational-level performance objectives in reading and mathematics. Scores for individual students as well as overall class results were reported to each CDC instructor during the month of November.

The Career Maturity Inventory (CMI) was administered to students on a pretest-posttest basis. The pretest was administered in October; the posttest in May. the CMI was developed to assess students' attitudes toward work. The CMI scores were compiled for presentation in tabular form by cluster and grade and students' overall pre- to posttest attitude change was investigated using a matched-pairs t test.

The progress of students in the CDC curriculum was ascertained by examining the behavioral objective percentage completion chart for each class. These data were put into tabular form for presentation in this report.

Several of the evaluation questions were investigated through informal interviews with CDC instructors and spontaneous observations in the CDC clusters.

Evaluation Results: The results listed below correspond, by number, to the evaluation questions presented earlier.

1. Data collected using the Facilities Survey are presented in Table 1. The ratings were excellent with only two minor problems observed. All the clusters could have used more bulletin board area and in the Fashion Design cluster, cork-topped pattern-drafting tables needed to be provided. The evaluator felt that all the CDC cluster areas were visually appealing, comfortable, and conducive to learning.

   The instructors in Automotive Technology and Fashion Design reported that all needed materials were available for instruction. Table 2 presents the categories of materials and the responses given by the instructors. The Apparel Construction instructor did not receive CDC curriculum materials (Implementation Guide and Evaluation Instruments) for use this year. Instead, the instructor had to use Xeroxed copies of working materials which were difficult to work from. Additionally, Student Learning Plans were not available for students' use until February.

2. A review of the CDC instructors' educational backgrounds, teaching experience, and cluster-related non-teaching experience indicated that the instructional positions had been filled with qualified personnel. The Automotive Technology instructor holds a bachelor's degree and has eight years of experience in the automotive field. In Apparel Construction, the instructor has six more hours of credit to complete for a bachelor's degree and has worked in the apparel construction industry for 21 years. The instructor in Fashion Design has 20 years of professional experience and has completed about 90 hours of college credit toward a bachelor's degree in fashion design

and textiles. Discussions with CDC instructors and observations in the classrooms indicated that the instuctors took an interest in the students and were well prepared in their professions.

Table 1

Evaluation of the Pinkston CDC Facilities[a]

Item	Cluster			Average
	Automotive Technology	Apparel Construction	Fashion Design	
Lighting	4	4	4	4
Temperature	4[b]	4	4	4
External noise	4	4	4	4
Walls (condition)	4	4	4	4
Floors (condition)	4	4	4	4
Bulletin boards	3	3	2[d]	3
Desks and tables				
(condition)	4	4	4	4
(quantitiy)	4	4	3[e]	4
(proper fit)	4	4	4	4
Floor space	4	3	3	3
Room colors	4	4	4	4
Classroom storage	3[c]	4	4	4
General Rating	4	4	4	-

[a] A rating of 4 indicates very good condition or adequate quantity, 1 indicates very poor condition or inadequacy.
[b] Classroom area gets too hot.
[c] Shop storage is adequate; classroom storage is fair.
[d] Fashion design relies heavily on display space--more is needed.
[e] Cork-topped pattern tables are needed.

Table 2

Availability of Materials: Response by Cluster for Each Category

Category	Cluster		
	Automotive Technology	Apparel Construction	Fashion Design
Textbooks/Manuals	Yes	No	Yes
Study Aids/Workbooks	Yes	Yes	Yes
Audio-Visual Materials	Yes	Yes	Yes
Curriculum Guide	Yes	No[a]	Yes

NOTE: "Yes" indicates availability.

[a] The instructor had a complete set of CDC curriculum materials last year but those were to have been revised for use during 1976-77. Since they were not ready the instructor could not provide Student Learning Plans for the class.

3. A description of the student body broken down by cluster is presented in Table 3. Males accounted for 35%of the CDC student population, females, 65%. The ethnic makeup at the CDC was 90% Black and 9% Mexican-American. There was one Oriental student in attendance. Thirty-nine percent of the students were tenth graders, 45% were eleventh graders and 26% were in twelfth grade. One of the CDC students attended on a part-time basis. No student difficulties were noted by the instructors.

   Results on the EST are presented in Table 4. The overall mastery level in reading was moderately high in all clusters. However, the achievement level in mathematics was considerably lower than the demonstrated reading achievement. Additionally, there were a few students whose individual mastery scores indicated a need for remedial reading and mathematics instruction.

4. The CDC instructors reported that the recruiting program conducted at Pinkston High School and information passed along to individual students had resulted in obtaining enough students in both clusters for the 1977-78 school year.

5. There were no formal entrance requirements for participation in the Pinkston CDC clusters. The CDC instructors did, however, look for students who seemed to be genuinely interested in the cluster areas.

6. Of the 12 seniors graduating from the Apparel Construction class, seven had obtained full-time positions in the industry. The hiring firm contacted the Pinkston CDC students through a DISD placement coordinator. Although most of the seniors in the Automotive Technology cluster were undecided, several planned to go into the automotive service field.

7. All students at the Pinkston CDC were provided with opportunities to gain first-hand experience in their cluster areas. Students in the Automotive Technology cluster had an opportunity to gain experience in automotive repair in the CDC shop. The range of work in which the students engaged covered routine maintenance through major engine overhaul. During observations made in the cluster all students were busy working on some phase of automotive repair. The repair work which students performed corresponded to and was an integral part of the instructional objectives contained in the Automotive Technology curriculum. Two students worked part-time in automotive repair shops. The Automotive Technology cluster took field trips to the General Motors Assembly Plant and to an automotive machine shop.

   Students enrolled in Apparel Construction were each assigned to a commercial sewing machine which they used throughout the year to develop skill in performing tasks required in the garment construction industry. In addition to practical experience on the commercial straight needle machines, the students learned to operate many different special purpose sewing machines. About three students worked part-time in fabric shops and several

Table 3

Student Population Profile: Number of Students in Each Category by Cluster

Category	Cluster		Total
	Automotive Technology	Fashion (combined)	
SEX			
Female	0	82	82
Male	42	2	44
RACE			
Anglo	0	0	0
Black	31	83	114
Mexican-American	10	1	11
American Indian	0	0	0
Oriental	1	0	1
GRADE			
10	1	35	36
11	26	31	57
12	15	18	33
PART-/FULL-TIME			
Full-time	42	83	125
Part-time	0	1	1
TOTAL	42	84	126

Table 4

Results on the Everyday Skills Test: Reading and Mathematics. Percentage of Students by Cluster Meeting Objective

EST Objective Number[a]	READING			MATHEMATICS		
	Automotive Mechanics	Apparel Construction	Fashion Design	Automotive Mechanics	Apparel Construction	Fashion Design
1	87	97	93	87	87	97
2	97	100	97	74	68	77
3	68	89	87	68	79	73
4	71	82	67	61	42	60
5	81	95	90	55	47	47
6	74	95	87	52	47	47
7	77	92	87	29	37	23
8	90	97	83	29	24	27
9	74	92	87	65	37	60
10	77	87	77	48	50	33
11	61	74	73	45	50	37
12	68	92	80	32	29	13
13	55	76	60	35	32	53
14	55	45	33	26	42	40
15	35	18	23	23	18	7

[a] The EST objectives are listed in the Context Report, Appendix E (see Additional Information).

students took in sewing at home. Students in Apparel Construction made two field trips during the year. They visited Sunny Isle, Inc. and Facho, Inc., both apparel construction firms.

In Fashion Design students completed many projects throughout the year which involved them in the types of tasks performed by career fashion designers. These activities included studying and sketching various apparel designs, drafting and cutting patterns, matching styles and color, and displaying samples constructed from their designs.

8. Observations made in both the Automotive Technology and Fashion clusters at Pinkston revealed that the CDC curriculum was implemented in these clusters. Interviews with teachers provided further evidence of curriculum implementation. The Skyline CDC curriculum was utilized in both clusters.

   Activities in the Fashion cluster included lectures and discussions on theory in the areas of Fashion Design and Apparel Construction, independent study in curriculum units by individual students, and hands-on activities in the field (described earlier).

   The activities engaged in by students in Automotive Technology ranged from lectures and discussions concerning the theory of automobile operation and repair to actual hands-on experience in repairing automotive components.

   The three CDC instructors at Pinkston spent much time circulating in their classrooms working with students and supervising students' work closely. Practically all the students expressed interest in their work and very positive attitudes toward the CDC program.

9. In both clusters, the instructors reported that 80% or more of their students had progressed satisfactorily in the CDC curriculum. and that there were several really outstanding students. Table 5 is a compilation of the number of behavioral objectives completed by students at the Pinkston CDC during the 1976-77 school year. The completion rates for students in the Automotive Technology cluster do not indicate that those students progressed satisfactorily. The reason for the discrepancy between the completion chart data and the instructor's report is not known. It is possible that the Skyline CDC curriculum was supplemented heavily with different curriculum materials or that the completion charts were not up to date.

10. Students' posttest attitude scores on the Career Maturity Inventory (see Table 6) were below the national average at each grade level (national norm for grade: 10 = 35.3; 11 = 36.0; 12 = 37.2). The national percentile rank was 15 for twelfth graders, 10 for eleventh graders, and 11 for students in the twelfth grade. According to the CMI Administration and Use Manual, a percentile rank at or above the twenty-fifth percentile indicates that students are progressing normally in their career development.

Table 5

Number of Pinkston CDC Students Completing
at Least 80%on Behavioral Objectives
in Their Cluster Areas

Cluster	Number of Objectives at or Above 80% Complete						N
	0-5	6-10	11-20	21-30	31-40	41-50	N
Automotive Technology[a]							
First Year	27	0	0	0	0	0	27
Second Year	17	0	0	0	0	0	17
World of Fashion							
Fashion Design							
First Year	9	6	6	14	0	0	35
Second Year	6	1	6	1	0	0	14
Apparel Construction							
First Year	3	2	4	5	7	0	21
Second Year	3	2	3	11	4	0	23

Note: The number of objectives completed should not be compared across cluster areas nor for first- and second-year students. The particular cluster area and level should be consulted in order to make further evaluative judgements from the data

[a] See the discussion in the text.

Table 6

Means, Standard Deviations, *N*, and Mean Differences on the CMI for Students at the Pinkston CDC

Cluster	*N*	Pretest *M*	Pretest *SD*	Posttest *M*	Posttest *SD*	Mean Differences
AUTOMOTIVE TECHNOLOGY						
Grade 10[a]	-	-	-	-	-	-
Grade 11	13	25.9	5.4	28.5	5.7	+2.6
Grade 12	11	28.9	4.2	29.8	4.3	+0.9
All Grades	25	27.4	5.0	29.2	5.1	+1.8
WORLD OF FASHION						
Grade 10	18	26.7	4.9	28.3	4.9	+1.6
Grade 11	16	26.7	3.9	28.5	4.7	+1.8
Grade 12	10	29.0	5.8	31.0	3.4	+2.0
All Grades	44	27.2	4.9	29.0	4.6	+1.8
BOTH CLUSTERS						
Grade 10	19	27.0	4.9	28.5	4.8	+1.5
Grade 11	30	26.6	4.8	28.6	5.1	+2.0
Grade 12	21	29.0	5.0	30.4	4.0	+1.4
MORNING STUDENTS	35	28.1	4.3	29.2	4.3	+1.1
AFTERNOON STUDENTS	35	26.8	5.5	29.0	5.3	+2.2
ALL STUDENTS	70	27.4	5.0	29.1	4.8	+1.7[b]

[a] insufficient data

[b] t(matched-pairs) = 3.61, df = 69, $p < .01$

Results of the t test performed on the pre- and posttest CMI scores revealed that statistically significant changes in students' attitudes took place during the school year (t(matched-pairs) = 3.61, $df = 69$, $p < .01$). The observed pre- to posttest change of 1.7 (raw-score points) is somewhat greater than the average gain per year experienced by the CMI norm group. Thus, while the students career maturity scores were low on both the pre- and posttests, progress was made during the school year. The progress was attributed to program effects and/or maturation.

11. It was reported that the World of Fashion cluster received instructional materials (especially fabric samples, etc.) through the advisory committee and that some full-time work opportunities for graduating students came through the committee. The fashion advisory committee, which was the same group that worked with Skyline, had classroom resource personnel available although that service was not utilized this year. The Automotive Technology instructor reported that he met with the advisory committee but that he received little assistance from the committee during the school year.

Additional Information:

SE77-112-9-7 Evaluation of the Pinkston Career Development Center, 1977, Stephen W. Hebbler.

Abstract

Evaluation of the Spruce Career Development Center for 1976-77

Evaluator Stephen W. Hebbler

Objectives of the Program: The Spruce Career Development Center (CDC) is a part of the Dallas Independent School District's commitment to career education. The Center presently offers training in five cluster areas: Automotive Mechanics, Automotive Body Repair, Plumbing and Pipefitting, Air Conditioning and Refrigeration, and Cosmetology. The curricula to be implemented in the clusters are those developed at the Skvline Career Development Center. The major goals and objectives of the clusters are stated in their respective curricula.

The Spruce CDC provides extensive training in the five cluster areas without sacrificing college entrance requirements. The main emphasis of the training is on marketable skills, but academics are not relegated to assubsidiary level of importance. The curriculum is sufficiently flexible and individualized to enable students to proceed at varying paces and to exit at different points during the training. The training program simulates job settings as far as possible. The CDC instructors have had extensive experience in their fields and the instructional facilities and equipment at Spruce are modern and similar to those currently found in business and industry.

Purpose of the Evaluation: The evaluation of the Spruce CDC was designed to (a) describe the context in which the CDC program was operating during the 1976-77 school year, (b) describe some of the processes involved in implementing the CDC program during the year, and (c) examine several outcomes of the CDC program. A set of evaluation questions focusing on the aims above were written and data pertaining to those questions were collected during the year. The major evaluation questions investigated within the study are listed below.

1. Were facilities, supplies, and materials necessary for the instructional process obtained?

2. Was an adequate staff secured to implement the instructional program?

3. What were the major characteristics of the student population at the CDC?

4. Was a recruitment program established and implemented in order to obtain students with sincere interests in the CDC cluster areas?

5. What were the entrance requirements for participation in the CDC clusters?

6. Was guidance provided to students interested in obtaining employment or pursuing further education in their fields of interest?

7. Were students provided with opportunities to learn about work through first-hand experience such as:

   a. Laboratory experiences in realistic work stations,
   b. Field trips and observations in actual work settings,
   c. Paid and/or unpaid on-the-job training?

8. Was the prescribed instructional program (curriculum) implemented within the classroom?

9. Did students demonstrate improved knowledge in their cluster areas during the school year?

10. Did students demonstrate improved attitudes toward work during the school year?

11. Was an active advisory committee representing the CDC clusters formed to provide assistance in curriculum development, enlist the aid of business in providing work experiences for students, disseminate the CDC concept to the business community and provide classroom resource personnel?

Sample: The sample utilized in the evaluation consisted of all students and instructors in the Spruce CDC. Questions 1, 2, 4 through 8, and 11 involved the CDC instructors while students provided the data necessary to answer questions 3, 9, and 10.

Evaluation Design and Procedure: During September, 1976, each of the CDC instructors completed a Materials/Equipment Inventory. Data from the inventory were tallied and summarized for presentation. Teachers' responses on the items pertaining to students' attitudes and difficulties, and comments concerning the operating of the CDC were also summarized for use in the evaluation.

The CDC instructors also completed a Professional Personnel Inventory during September. That instrument was designed to collect data concerning educational background, teaching experience, and cluster-related non-teaching experience for each instructor.

The facilities available in each of the CDC clusters were rated on November 25 using the Facilities Survey.

During October, each student filled out a Student Information Sheet. Information gathered using this instrument included student identification number, cluster area, sex, race, grade level, and full/part-time status.

All CDC students were administered the Everyday Skills Tests: Reading and Mathematics (EST) on October 26. The EST is a criterion-referenced test designed to assess students' mastery of operational-level performance objectives in reading and mathematics. Scores for individual students as well as overall class results were reported to each CDC instructor during the month of November.

The Career Maturity Inventory (CMI) was administered to students on a pretest-posttest basis. The pretest was administered in November; the posttest in May. The CMI is a 50-item attitude instrument designed to elicit the feelings, subjective reactions, and dispositions that the individual holds toward making a career choice and entering the world of work. The following five attitudinal clusters are surveyed by the CMI:

1. involvement in the career choice process,
2. orientation toward work,
3, independence in decision making,
4. preference for career choice factors, and
5. conceptions of the career choice process.

The CMI scores were compiled for presentation in tabular form by cluster and grade and students' overall pre- to posttest attitude change was investigated using a matched-pairs t test.

The progress of students in the CDC curriculum was ascertained by examining the behavioral objective percentage completion chart for each class. These data were put into tabular form for presentation in this report.

Several of the evaluation questions were investigated through informal interviews with CDC instructors and spontaneous observations in the CDC clusters.

Evaluation Results: The results listed below correspond, by number, to the evaluation questions presented earlier.

1. Data collected using the Facilities Survey are presented in Table 1. The ratings were generally good with one major exception. The Automotive Body cluster obtained several poor ratings. The reasons for poor ratings included: inadequate space in both shop and classroom areas, inadequate shop and classroom storage, lack of bulletin board space, and an inadequate supply of air pressure--needed to run air tools. The evaluator felt that all the other cluster areas at the CDC were visually appealing, comfortable, and conducive to learning. Minor problems expressed by the CDC instructors are noted in Table 1.

   Most of the instructors reported that all needed materials were available for instruction. Table 2 presents the categories of materials and the responses given by the instructors. The Automotive Technology instructor expressed a need for study aids, workbooks and audio-visual materials. Audio-visual materials were lacking in the Plumbing/Pipefitting cluster.

Table 1

Evaluation of the Spruce CDC Facilities[a]

Item	Cluster					Average
	Cosmetology	Automotive Mechanics	Automotive Body	Plumbing Pipe Fitting	Head Refrigeration	
Lighting	4	4	4	4	4	4
Temperature	4	4	3	4	4	4
External Noise	3	4	4	2	3	3
Walls (condition)	4	4	3	4	4	4
Floors (condition)	4	4	3	4	4	4
Bulletin Boards	4	3	2	3	3	3
Desks and Tables						
(condition)	4	3	3	4	4	4
(quantity)	4	4	1	4	4	4
(proper fit)	4	4	3	4	4	4
Floor Space	4	4	1	2[b]	3[d,e]	3
Room Colors	4	3	2	4	3	3
Classroom Storage	4	3	1	2[c]	4	3
General Rating	4	4	2	3	4	-

[a] A rating of 4 indicates very good condition or adequate quantity, 1 indicates very poor condition or inadequacy.

[b] Instructor expressed the need for a separate classroom area so that shop could be spread out as it was in previous years.

[c] Presently inadequate but an outside storage area is being constructed.

[d] More electrical outlets needed in order to be able to utilize the floor space available

[e] Instructor indicated that the fire safety is insufficient (e.g., there is no exit from the classroom side of the cluster area).

Table 2

Availability of Materials: Response by Cluster for Each Category

Category	Cluster				
	Cosmetology	Automotive Technology	Automotive Body	Plumbing Pipe Fitting	Heating and Refrigeration
Textbooks/Manuals	Yes	Yes	Yes	Yes	Yes
Study Aids/Workbooks	Yes	No	Yes	Yes	Yes
Audio-Visual Materials	Yes[a]	No	Yes	No	Yes
Curriculum Guide	Yes	b	b	Yes	Yes

NOTE--"Yes" Indicates availability

[a] The materials are not very good but replacement with new AV materials at this time would be too expensive.

[b] This cluster will not begin using the Skyline CDC curriculum until the 1977-78 school year.

2. A review of the CDC instructors' educational backgrounds, teaching experience, and cluster-related non-teaching experience indicated that the instructional positions had been filled with qualified personnel. Three of the five instructors held a bachelor's degree and another had completed some college work. Most of the instructors had over 10 years of professional non-teaching experience and most had over 10 years experience in teaching. Discussions with CDC instructors and observations in the classrooms indicated that the instructors took an interest in the students and were well prepared in their professions.

3. A description of the student body broken down by cluster is presented in Table 3. Males accounted for 81% of the CDC student population, females 19%. The ethnic makeup at the CDC was 64% Anglo, 22% Black, and 14% Mexican-American. Seventeen percent of the students were tenth graders, 55% were eleventh graders, and 29% were in the twelfth grade. Four of the CDC students attended on a part-time basis.

   Several student problems were listed by CDC instructors. One instructor reported that poor reading and mathematics abilities kept the students from performing adequately. One teacher said that the first year curriculum in his cluster involved so much bookwork in relation to laboratory work that students became disinterested in the program. Finally, problems encountered in making field trips (primarily transportation problems) were noted by one instructor.

   Results on the EST are presented in Table 4. The overall mastery level in reading was high in three of the five clusters and average in the other two. The achievement level in mathematics was somewhat lower than the demonstrated reading ability. Additionally, there were a few students whose individual mastery scores indicated a need for remedial reading and mathematics instruction.

4. The Spruce CDC recruiting efforts consisted of two major activities which took place in December: (1) The ninth-grade students at Spruce were assigned to four groups which visited each of the CDC clusters. The CDC instructor in each cluster gave a brief introduction to his/her program and allowed the visiting students to ask questions; (2) Tenth and eleventh graders were given a brief overview of the CDC offerings at Spruce at an assembly called for that purpose. During the assembly, each CDC instructor gave a short overview of his/her program.

   The CDC instructors' feelings about the usefulness of the recruiting activities conducted this year were mixed. One of the instructors considered the recruiting effective and worth the time involved, and another reported that a few prospects were gained by the recruiting effects, but added that they may have been conducted too early in the year. Three instructors did not feel that the activities were effective in recruiting interested students for next year.

Table 3

Student Population Profile: Number of Students in Each Category by Cluter

	Cosmetology	Automotive (combined)	Plumbing & Pipefitting	Heating & Refrigeration	Total
SEX					
Female	18	4	1	0	23
Male	0[a]	48	23	27	98
RACE					
Anglo	12	31	20	14	77
Black	4	15	1	7	27
Mexican-American	2	6	3	6	17
American Indian	0	0	0	0	0
Oriental	0	0	0	0	0
GRADE					
Tenth	1	7	6	6	20
Eleventh	15	23	14	14	66
Twelfth	2	22	4	7	35
PART-/FULL-TIME STATUS					
Full-time	17	50	23	27	117
Part-time	1	2	1	0	4
TOTAL	18	52	24	27	121

[a] There is one male student in this cluster for whom a student information sheet is not on file.

T

Results on the Everyday Skill
Percentage of Students

Objective[a]	Reading				
	Auto. Tech.	Auto. Body	Plumbing & Pipefitting	Heating & Refrigeration	Cosme
1	100	95	100	96	1
2	96	89	100	84	
3	100	79	100	88	1
4	100	84	95	84	1
5	100	79	100	80	
6	100	68	90	84	1
7	96	79	95	72	1
8	100	79	95	80	1
9	96	79	100	76	
10	100	68	100	76	
11	96	74	95	72	
12	100	84	95	64	
13	96	68	80	80	
14	93	63	80	76	
15	75	32	60	52	

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[a] Objectives are listed in Appendix E of the Context

Table 4

s Tests: Reading and Mathematics.
by Cluster Meeting Objectives

	Mathematics				
tology	Auto. Tech.	Auto. Body	Plumbing & Pipefitting	Heating & Refrigeration	Cosmetology
00	100	89	100	88	96
96	100	84	85	84	85
00	100	84	100	84	85
00	93	58	80	60	81
96	100	74	85	64	65
00	75	68	85	60	65
00	93	47	80	68	50
00	57	26	65	28	27
92	82	42	75	52	73
92	82	63	80	52	73
85	96	74	100	64	77
92	89	53	80	60	42
96	71	58	55	44	38
81	61	47	65	32	69
77	32	11	35	32	23

Report (see Additional Information)

5. The instructor in Cosmetology reported that students' attendance and discipline records, and their test scores were used in previous years to aid in the selection of capable, interested students. This year, however, the instructor could not utilize student records for screening and, as a result, some of the students had problems working in the curriculum. Although no formal criteria were used for enrollment in the other CDC clusters at Spruce, the instructors in these clusters tried to obtain students who were sincerely interested in participating in the CDC activities.

6. Of the 40 seniors at the CDC for which information was available, 20 were planning to work full-time in their CDC field, two were entering the military in their CDC field, nine were planning to attend college, four were going to work full-time in a different field, one was entering the military in a different field, and four students were undecided. None of the students who were planning to work full-time or to enter the military had received career guidance from the school counselor. A DISD job placement coordinator had helped to arrange job interviews for six students in the Air Conditioning/Refrigeration cluster.

   Students in Cosmetology must pass a State Board examination before practicing in the field. By the end of May, five students had passed the examination, one had passed half of the examination, and two were planning to take the examination during the summer. The Cosmetology instructor worked with the cluster students to help prepare them for the State Board examination and also assisted students in locating full-time positions in the field.

7. Realistic laboratory experience was gained by all Spruce CDC students (although to a lesser degree for first-year students in some clusters). In the Automotive Mechanics cluster students engaged in a wide range of automotive repair from tune-ups to major engine overhaul. Automotive Body students participated in minor and major body work, surface preparation, painting, and finishing. In both of the automotive-related clusters students learned skills such as metal cutting and welding. In the Plumbing/Pipefitting cluster students learned to follow plans and specifications in the construction of plumbing systems, and to cut and weld. The tools and machinery which the students used in constructing their projects were like those found in industry and, thus, afforded students valuable experience. The Heating/Refrigeration cluster afforded students an opportunity to repair "bugged" instructional simulators and to work on refrigerators, furnaces, and the like. In Cosmetology, first-year students got hands-on experience in shampooing, setting, and styling by using manequins and by cutting and styling each others hair. Second-year students gained experience by working with patrons who came to the cluster for services. The laboratory experiences offered to students went beyond hair care and included manicure and skin care. All laboratory work in the Cosmetology cluster was closely supervised by the instructor,

Several field trips were made by CDC students this year. The Automotive Body students visited the General Motors Assembly Plant and Plumbing/Pipefitting students saw Tyler Pipe, Southern Nipple, and several supply companies. Students in Air conditionig/Refrigeration visited Dallas Hermetic, Compressor Parts and Repair, Dallas/Ft. Worth Airport (large-ton air conditioning), the University of Texas at Dallas (absorption-type air conditioning), and several supply companies.

8. Observations made in each of the CDC clusters revealed that the CDC curriculum was being implemented. During visits to the Auto Mechanics cluster almost all students appeared to be working enthusiastically. Sometimes the students in the classroom area were engaged in reading or writing activities related to the curriculum and at other times they were observed working on automobiles or repairing automotive components. Very little horseplay and no discipline problems were observed in this cluster. The Automotive Mechanics cluster will begin using the Skyline-developed CDC curriculum next year.

   The facilities provided for the Automotive Body cluster are inadequate in several respects (see Question 1). The fact that more students were observed off task in this cluster than in the others could possibly be attributed to the crowded facilities and lack of air pressure to drive pneumatic tools. The instructor reported that many times students had to wait to use an air tool when other tools were already in use or an automobile was being painted in the spary booth. The Skyline-developed CDC curriculum will be used in this cluster next year.

   During observations in the Plumbing/Pipefitting cluster students were observed listening to presentations by the instructor, studying independently, and working on laboratory projects. During all observations, the students in this cluster appeared to be actively engaged in learning activities. No horseplay or discipline problems were observed.

   Students in the Air Conditioning/Refrigeration cluster were observed participating in several activities. During one visit, the students were all attentively watching the instructor demonstrate gas furnace operation using a small simulator which had been borrowed from a local company. Other visits revealed students preparing for a test on theory, and working on individual projects in the shop area. No discipline problems were observed.

   During visits to the CDC, the evaluator observed Cosmetology students studying independently and participating in laboratory experiences. One of the activities observed involved first-year CDC students rolling permanent waves on practice manequins. Students in the Cosmetology cluster seem to work well independently and no discipline problems were observed during the year.

9. Most of the instructors reported that their students had progressed satisfactorily in the CDC curriculum during the school year. Table 5 presents the number of behavioral objectives completed by Spruce CDC students during 1976-77.

Table 5

Number of Spruce CDC Students Completing
Behavioral Objectives in Their Cluster Areas

Cluster[b]	Number of Objectives Completed[a]						
	0-5	6-10	11-20	21-30	31-40	41-50	N
Cosmetology							
First Year[c]	17	0	0	0	0	0	17
Second Year	0	0	11	0	0	0	11
Plumbing/Pipefitting							
First Year[d]	11	0	0	0	0	0	11
Second Year	1	2	7	1	1	0	12
Air Conditioning/Refrigeration							
First Year	8	1	3	0	0	0	12
Second Year	1	2	4	4	5	2	18

NOTE: The number of objectives completed should not be compared across cluster areas nor for first- and second-year students. The particular cluster area and level should be consulted in order to make further evaluative judgements from the data.

[a] To have completed an objective, the student must have received a "100%" on the behavioral objective percentage completion chart. Many students have partially completed other objectives.

[b] The Automotive Technology and Automotive Body clusters are not represented in this table because they did not utilize the Skyline CDC Automotive Curricula this year.

[c] Objectives begun during the first year in the Cosmetology cluster are completed during the second year.

[d] There are only five major objectives for first year students in the Plumbing/Pipefitting cluster.

10. Students' posttest attitude scores on the Career Maturity Inventory (see Table 6) were somewhat below the national average at each grade level (national norm for grade: 10 = 35.3; 11 = 36.0; 12 = 37.2). The national percentile rank was 16 for tenth-grade

Table 6

Means, Standard Deviations, N, and Mean Differences on the CMI for Students at the Spruce CDC

Cluster	N	Pretest		Posttest		Mean Differences
		M	SD	M	SD	
COSMETOLOGY						
Grade 10[a]	0	-	-	-	-	-
Grade 11	13	31.7	6.9	35.1	3.4	+3.4
Grade 12[a]	1	-	-	-	-	-
All Grades	14	32.6	9.9	35.1	3.3	+2.5
AUTOMOTIVE (Combined)						
Grade 10	2	24.0	0.0	26.5	4.5	+2.5
Grade 11	17	31.8	4.8	34.8	5.2	+3.0
Grade 12	12	22.8	14.1	31.6	4.3	+8.8
All Grades	31	27.8	10.4	33.0	5.4	+5.2
PLUMBING/PIPEFITTING						
Grade 10[a]	2	-	-	-	-	-
Grade 11	5	25.4	6.9	27.6	7.0	+2.2
Grade 12	8	28.6	11.3	35.0	5.9	+6.4
All Grades	15	25.7	11.5	32.6	6.9	+6.9
HEATING REFRIGERATION						
Grade 10	3	26.7	4.6	30.7	4.6	+4.0
Grade 11	9	30.1	5.0	28.6	3.0	-1.5
Grade 12	7	31.9	7.5	32.4	6.8	+0.5
All Grades	19	30.2	6.2	30.3	5.3	+0.1
ALL CLUSTERS						
Grade 10	5	25.6	3.8	29.0	5.0	+3.4
Grade 11	44	30.7	7.2	32.8	5.6	+2.1
Grade 12	28	27.5	12.6	32.9	5.6	+5.4
MORNING STUDENTS	25	30.2	8.5	33.3	5.1	+3.1
AFTERNOON STUDENTS	54	28.2	10.6	32.4	5.8	+4.2
ALL STUDENTS	79	28.8	10.0	32.7	5.6	+3.9[b]

[a] insufficient data

[b] t(matched-pairs) = 3.08, df = 78, $p < .01$

students, 29 for eleventh graders and 20 for students in the twelfth grade. According to the CMI Administration and Use Manual, a percentile rank at or above the twenty-fifth percentile indicates that students are progressing normally in their career development.

Results of the t test performed on the pre- and posttest CMI scores revealed that statistically significant changes in students' attitudes took place during the school year (t(matched-pairs) = 3.08, df = 78, $p < .01$). The observed pre- to posttest change of 3.9 (raw-score points) was greater than the average gain per year experienced by the CMI norm group. Thus, while the students' career maturity scores were low on both the pre- and posttests, progress was made during the school year. The progress was attributed to program effects and/or maturation.

11. Most of the CDC instructors reported that they were not allowed to attend advisory committee meetings because the meetings were held during school hours. Thus, there was no contact this year between the Skyline CDC Advisory Committee and the Spruce CDC clusters. The Automotive Body instructor used several independent body repair firms as community resources. These firms donated some paint and loaned films to the CDC. Resource personnel from one of the shops conducted two two-hour classes in matching colors.

Additional Information:

SE77-113-9-7 Evaluation of the Spruce Career Development Center, 1977, Stephen W. Hebbler.

1721

Abstract

75-557

Community Assessment of the Roles and Potential Goals for Career Education Programs in the Dallas Independent School District

Evaluator: Richard A. Zepeda

Purpose of the Evaluation: This study was conducted to determine the perception of career education held by the community of Dallas. It was considered important that information be sought about the community's knowledge of career education efforts in the Dallas Independent School District (DISD), their opinions about these efforts, and their assessment of the need for improvement in career education programs. It was intended that information about the community's assessment of the role of career education might help District decision makers plan goals for future career education efforts.

Sample: By design, the results of the study were to generalize across the population of all residents within the geographic bounds of the DISD whether residing in an apartment or in a private dwelling. Cost factors limited the sample size to 700. Since a sample this size, if spread over the entire District, would not allow for meaningful comparisons among geographic locations, it was decided to limit the study to seven selected Zip Codes. Zip Codes were used since they were the most easily obtained and interpreted referent for a geopraphical location. The two codes most proximate to Skyline Career Development Center (CDC), 75227 and 75228, were chosen in order to compare these respondents with residents located some distance from Skyline CDC. The other codes (75212, 75224, 75230, 75233, and 75246) were chosen areas in the north, south, west, and central parts of the city. It was hoped that these seven areas would also provide a representative racial distribution among the respondents. The sampling scheme used for this study is described in the table below. It can be seen that an overall sample of approximately one percent was achieved. Two locations, those expected from previous experience to exhibit low response rates, were oversampled.

Population and Sample for the Community Study

Zip Code	Number of Apartments	Sample Number/Percent	Number of Residences	Sample Number/Percent
75212	1,780	27/1.5	4,855	73/1.5
75224	3,927	36/0.9	6,934	64/0.9
75227	1,500	16/1.1	7,953	84/1.1
75228	4,156	26/0.6	12,081	74/0.6
75230	5,708	49/0.9	5,974	51/0.9
75233	2,426	50/2.1	2,380	50/2.1
75246	1,656	84/5.1	310	16/5.2
TOTAL	21,153	288/1.4	40,487	412/1.0
GRAND TOTALS	N = 61,640	N - 700	% = 1.1	

The actual return of 104 questionnaires was probably biased in several ways, most notably by race, geographic location, type of residence, and length of residence in Dallas. Of those replying and indicating race 86% were white. Over half the returns came from the two Zip Codes closest to Skyline Center. Length of residence in the Dallas vicinity was over 6 years for 8 out of 10 respondents. Finally, fewer than 10% of the respondents lived in apartments. The "typical" person returning the survey was a white, married, property owner, and resident in a private dwelling near Skyline CDC, between the ages of 41 to 65 years, who had lived in the Dallas area over 6 years.

Evaluation Design: The study was designed to compare knowledge and attitudes about career education across several variables. Some of these variables, such as age, sex, and income, were allowed to distribute themselves in the return by chance. The variables of race and geographic location were intended to be controlled by the selection of Zip Codes for sampling.

The instrument used in the study was designed by the Skyline Research and Evaluation staff and modified after consultations with program management. To allow analytic comparisons, it contained four separate parts: (a) knowledge of career education, (b) opinions about career education, (c) comparison of career education with other programs (needs assessment), and (d) demographic information.

The instruments sent to the sample of private dwellings were mailed, using the District's bulk mailing permit. Since a minimum of 200 pieces that are exactly alike must be sent in order to qualify for bulk mailing, the mailing to apartment managers was metered. Each of these envelopes contained the number of questionnaires selected for that apartment complex and a letter to the manager. Since these numbers varied, a lot of 200 could not be assembled for bulk mailing. Provisions were made for all questionnaires to be returned postage paid. Return postage was also guaranteed for pieces that were undeliverable.

Approximately two weeks after the first mailing a follow-up mailing was sent. At that time 35 questionnaires had been completed and returned; a like number had been returned as undeliverable. Six weeks after the first mailing 104 returns had been received, a return rate of 14.9%. The reader is advised to consider this rate when interpreting results of this study.

Evaluation Results: Several points may be inferred from this study. From the knowledge section of the instrument it was learned that, on the average, 40% of the respondents did not know the answer or did not respond to the average item. Overall the respondents had a good general knowledge of career education as reflected by their knowledge of Skyline CDC.

One category where at least 60% of the respondents answered the items correctly consisted of knowledge that Skyline CDC:

1. was located in *East* Dallas,
2. recruited from *all* high schools in the District,
3. recruited students across a *wide range* of abilities, and
4. was designed to appeal to *both* males and females.

Another category included those questions where approximately 40% of the respondents chose the correct answer (roughly the same figure as the overall average). These items covered knowledge that Skyline CDC:

1. instructors had *related job experience*, and
2. had been in operation *4-5* years.

Very few respondents knew specifics such as the number of clusters taught at the Skyline CDC or the fact that CDC programs had been exported to other schools. No respondent was able to answer all nine knowledge items correctly. No practical differences on knowledge of Skyline CDC existed across demographic variables.

An analysis of the opinion section of the instrument showed a large measure of support for career education. Though the questionnaires provided opportunities for negative responses, few were noted. Response patterns to representative opinion questions, including differences over demographic variables, are given below.

One opinion item asked at what grade levels career education should be found. It is easily seen in the table that career education was supported by a 90% majority of respondents and that this support was concentrated in the secondary grades and decreased through the lower grades. The table shows that approximately 90% supported career education in the high schools, 75% in grades junior high and above, and 25% in all grades. Judged as significant and indicative of support for career education were the low rates for the last three choices.

Item: Career education is an important part of the DISD curriculum. It should be found:

Choices	Number of Responses
At all grade levels (K-12)	24 (23%)
In high schools but not at lower grades	26 (25%)
In junior and senior high schools but not the elementary grades	43 (41%)
Only in the elementary grades (K-6)	0 (0%)
Only in the middle grades (7-9)	1 (1%)
In no grades	1 (1%)
No response	9 (9%)

The distribution of responses for another opinion item is shown next. The interpretation of this distribution is seemingly straightforward, i.e., a large majority in favor of expanding CDC programs.

Item: Given what you know about Skyline CDC, should similar programs be located at all District high schools?

Yes	No	No Opinion	No Response
62 (60%)	20 (19%)	15 (14%)	7 (7%)

However, when these responses were dichotomized by age groups, as shown below, an interesting and statistically significant distribution occurred. It can be seen that in evaluating respondent opinions almost all opposition or disapproval towards expanding Skyline CDC programs came from the group 41 years old and above.

	Age	
Response	Up to 40 Years	41 Years and above
Yes	24	37
No	1	19
No Opinion	4	11

$X^2 = 8.53$ $p = .01$

Responses to another item are tabulated below. It is seen that roughly one-quarter of the 104 respondents fell into the "No Opinion" or "No Response" categories. When the remaining respondents were examined, it was seen that the "Yes's" dominated at a three-to-one rate.

Item: Based on what you know about Skyline CDC, should other similar facilities such as a Skyline II be built in another part of the city?

Yes	No	No Opinion	No Response
60 (58%)	18 (17%)	19 (19%)	7 (7%)

An analysis of responses to this item was performed across levels of education. It is readily seen that the "No" responses clustered in the college-educated group, although the majority of persons in that group answered "Yes." If construction of another facility such as the one mentioned in the questionnaire were anticipated, recognition of this pattern might become important.

	Education			
Responses	Less Than High School	High School	High School +	College Graduates
Yes	6	17	16	19
No	2	1	2	12
No Opinion	6	6	4	3

$\chi^2 = 17.04$ $p = .01$

Respondents also exhibited strong support for students' having acquired salable skills by the time of their exit from the twelfth grade. They were divided about career education's being a specialized preparation for a specific occupation, but they felt strongly that it should lead to further education.

Those surveyed were also asked to rank existing DISD programs in the areas of career education, language arts, mathematics, social studies, and science according to the amount of improvement they thought each area needed. Career education drew the largest number of responses under the "greatest need to be improved category" and ranked number one among the programs needing to be improved. Either career education now has such perceived importance that it merits this emphasis, or else this need is the result of a perceived poor job of teaching career education in comparison to the teaching of other programs.

Additional Information:

75-557	Community Assessment of the Roles and Potential Goals for Career Education Programs in the Dallas Independent School District, 1975, Richard A. Zepeda, 50 pages.

For further information regarding DISD career development programs (Skyline, Adamson, Pinkston, Edison), see pages .

SE77-052-3-9

Abstract

Evaluation of the 1976-77 Vanguard Schools

Evaluator: Johnny Lawton
Vickie Peters

Objectives of the Program: DISD Vanguard schools were mandated by the April 7, 1976 desegregation court order. The Vanguards were intermediate schools (grades 4 through 6) that followed DISD's Baseline Curriculum. Each principal and his staff were required to develop, in conjunction with parent advisory committees in his school, plans for implementing the Baseline Curriculum.

The Vanguard schools included all students presently enrolled, while remaining student stations were filled on the basis of District-wide racial ratio plus or minus 10%. Those groups not presently represented in the school received first priority. Students could apply from anywhere in the District.

In concurrence with the April, 1976 desegregation court order, Maynard Jackson Center for Individually Guided Education, the Mark Twain Fundamental school, the Amelia Earhart Montessori School and the Sidney Lanier Center for Expressive Arts were established. The Maynard Jackson Center for Individually Guided Education initially tested each student to determine their level of academic proficiency. He or she was then allowed to learn, in a team-teaching environment, at his or her particular rate of progress-- which was re-evaluated periodically. Under Mark Twain's fundamental program a student received a basic education. He or she adhered to a school dress code and a more structured environment. Amelia Earhart's Montessori school, that operated as a "school within a school" at Amelia Earhart Elementary, taught Marie Montessori's approach to learning. Basic education and the expressive arts, e.g., art, drama, were taught at Sidney Lanier Center for Expressive Arts

Purpose of the Evaluation: The purpose of evaluating the Vanguards was to assure that DISD was complying with the April 7, 1976 desegregation court order and to provide timely information to District administrators.

Sample: The sample was drawn from all aspects of the Vanguard program: Five Vanguard school administrators and two DISD Transportation officials were interviewed concerning their perception of the effectiveness of Vanguard transportation facilities. Classroom observations were made of all Vanguard classes at all Vanguard schools to discern the school's characteristics and instructional program. A Research and Evaluation Data Technician extracted personal demographic information on all students from school records. Parents and guardians were encouraged to express their opinion of the Vanguard program through Parent-Guardian Surveys; while teachers expressed their opinion of the Vanguard program on Teacher Questionnaires.

Student achievement was measured by the Iowa Tests of Basic Skills (ITBS) September 15-29, 1977 (pretest) and April 25 - May 6, 1977 (posttest).

Evaluation Design: Operation of the Vanguard program was assessed during two periods of process evaluation: one conducted October 11, 1976 through December 3, 1976, and another conducted January 17, 1977 through March 4, 1977. All Vanguard teachers, each of the five Vanguard principals or their representative, and two DISD Transportation officials were interviewed.

Data for the process evaluations were analyzed by computing frequency distributions on the obtained information.

Evaluation Results:

1. What were the characteristics of the Vanguard schools?

   Vanguard schools were ethnically stratified. Most administrators were White (80%), most teachers were White (58%), and most students were Black (63%). School administrators in the Vanguard were predominantly White males (80%), while their teaching staff was comprised of predominantly White female teachers (58% White and 85% female). Most Vanguard teachers had Bachelor's degrees (59%), had taught over 11 years (31%); while Vanguard administrators have taught or been administrators for over nine years and had Master's degrees.

   The Vanguard schools, except for K. B. Polk, received students primarily from their immediate neighborhood and were characteristic of their neighborhood: Amelia Earhart, Mark Twain and Maynard Jackson are located in primarily Black populated areas and have primarily Black students: 76%, 70% and 98%, respectively. Vanguard students within individual schools, came primarily from Northwest Dallas (Amelia Earhart), Northeast Dallas (Mark Twain), and East Oak Cliff (Maynard Jackson). K. B. Polk, which was predominantly composed of White students (68%), drew most of its students from Northwest Dallas. (Eighty-one percent of K. B. Polk Vanguard students were bussed to K. B. Polk.)

   Three hundred twenty-one students (20% of the total Vanguard enrollment) transported were driven to their Vanguard schools by DISD county leased buses, Highland Hills Transportation Company, students' parents or by other means. Their presence only slightly affected the White/non-White ratio.

2. Of what did the instructional program at each Vanguard consist?

   Each of the five Vanguard schools featured a special curriculum. At the Amelia Earhart Montessori Center, the instructional program was based on the Montessori teaching method with DISD Baseline mastery objectives used as a foundation. The curriculum at the Sidney Lanier Center for Expressive Arts emphasized reading, writing, drama, art, music, and foreign languages. The Maynard Jackson Center for Individually Guided Education was an open-area school featuring team teaching. Students were instructed at their ability level with extensive use of skills kits and learning packets. At the K. B. Polk Center for Advanced Studies, basic subjects were taught through an enriched approach using mini-courses in special areas such as chemistry, physics, archaeology, or botany. The curriculum was designed to broaden the students' thinking abilities. Practice in techniques of logic, problem solving, and brain-teaser activities were major pursuits in each of the mini-courses. The curriculum of the Mark Twain Fundamental School was traditional and structured. Basic development of skills in reading, writing, and arithmetic was stressed with each student achieving DISD Baseline mastery objectives at his or her level.

3. What was the level of performance of Vanguard students on a standardized achievement battery?

   In general, Vanguard students tested with the ITBS were found to be one to two years below grade level in the fall, 1976, and at least one year below grade level in the spring, 1977. K. B. Polk was the only Vanguard with students at grade level or above grade level, as determined by the ITBS. K. B. Polk students averaged one year above grade level in the fall, 1976, and one and one-half to two years beyond initial grade level in the spring, 1977. (See tables 1-5 attached: "Distribution of ITBS Scores).

4. What was the effect of enrollment in the Vanguard on the attendance of students?

   Absenteeism overall ranged from 0 days (N=254) to 92 days (N=7) and averaged 7 days (SD=8.97). K. B. Polk students were the least absent (an average of 3.8 days) and Sidney Lanier students were the most absent (an average of 10.63 days).

5. Did the discipline of Vanguard students improve?

   Both parents and teachers reported an improvement in student discipline. Fifty-six percent of Vanguard parents responding to a Vanguard Parent-Guardian Survey reported that their child's discipline improved during the school year 1976-77. At the beginning of the 1976-77 school year, teachers noted that there was a discipline problem at some schools. At the end of the school year only 14% of all Vanguard teachers who responded to a Teacher Questionnaire believed there was a discipline problem. In essence, there was reported improvement in discipline for

Vanguard students but the specific amount attributable to the Vanguard program was not precisely measurable.

6. Were parents of Vanguard students more involved in their child's school?

All Vanguard schools have an active Parent Advisory Committee or Parent Teachers Association and a volunteer program. Fifty-one respondents (5%) to a Parent-Guardian Survey reported that they were Parent Advisory members; and 287 (30%) were Parent Teacher Association members. Two-hundred twenty-five (23%) respondents reported that they had participated as volunteers or in some other assisting relationship. When specific participation was analyzed most of the above group performed various tasks, e.g., classroom duties, baked, provided transportation. Seven respondents stated that their primary role as PAC or PTA members was to attend transition meetings when Dallas began desegregation.

Sixty respondents (6%) said they assisted in designing the Vanguard program at their child's school. There is no way to determine here whether parents are more involved in their child's school.

7. Did Vanguard student involvement in the program extend into extra-curricular activities?

Amelia Earhart Montessori Center, Maynard Jackson Center for Individually Guided Education, Sidney Lanier Center for the Expressive Arts, K. B. Polk Center for Advanced Studies and Mark Twain Fundamental Center all had extra-curricular activities that mentally and physically challenged their students. Many activities were held during class or between class but a large number were held during after school hours. When activities were held after school, transported students without transportation were often denied an opportunity to participate. This is because DISD does not provide transportation for Vanguard students when Vanguard students remain after school hours. (DISD Transportation officials stated that no Vanguard school administrator had requested transportation for transported students to participate in after school activities.)

When parents of Vanguard students were asked on a Parent-Guardian Survey if their child participated in after school activities, 46% (N=436) said "yes" and 43% (N=414) said "no". Those who participate in after school activities provided their own transportation: private auto (17%), walk (30%), or other (2%).

Table 1

Percentage Distribution of ITBS Scores[a]
Vocabulary

	Amelia Earhart		Sidney Lanier		K. B. Polk		Mark Twain		Maynard Jackson		Total Vanguard	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fourth Grade												
Above Grade Level	4%	13%	8%	14%	60%	83%	15%	24%	4%	9%	12%	21%
At Grade Level	8%	13%	10%	25%	31%	17%	18%	24%	12%	25%	14%	23%
Below Grade Level	88%	75%	82%	61%	9%	0%	67%	52%	85%	66%	73%	56%
Fifth Grade												
Above Grade Level	0%	6%	8%	19%	83%	89%	15%	26%	1%	5%	14%	20%
At Grade Level	6%	13%	11%	13%	8%	8%	25%	26%	6%	14%	12%	16%
Below Grade Level	94%	81%	80%	68%	8%	3%	60%	48%	93%	83%	75%	64%
Sixth Grade												
Above Grade Level	0%	5%	6%	12%	69%	86%	15%	29%	4%	6%	13%	20%
At Grade Level	5%	0%	6%	10%	24%	12%	16%	13%	5%	12%	9%	11%
Below Grade Level	95%	95%	88%	77%	7%	2%	69%	59%	92%	82%	78%	69%

Note. Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 2

Percentage Distribution of ITBS Scores[a]

Mathematics Skills

	Amelia Earhart		Sidney Lanier		K. B. Polk		Mark Twain		Maynard Jackson		Total Vanguard	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fourth Grade												
Above Grade Level	4%	12%	2%	7%	37%	80%	12%	18%	2%	6%	8%	16%
At Grade Level	13%	25%	8%	35%	34%	17%	15%	19%	14%	26%	15%	26%
Below Grade Level	83%	63%	89%	58%	29%	3%	73%	63%	84%	68%	77%	58%
Fifth Grade												
Above Grade Level	0%	0%	2%	14%	50%	75%	11%	18%	1%	6%	7%	16%
At Grade Level	0%	12%	10%	19%	28%	17%	19%	24%	4%	10%	11%	16%
Below Grade Level	100%	88%	88%	67%	22%	8%	70%	58%	96%	87%	82%	69%
Sixth Grade												
Above Grade Level	0%	5%	2%	9%	62%	83%	6%	23%	2%	4%	9%	17%
At Grade Level	0%	0%	6%	14%	21%	12%	15%	18%	6%	10%	9%	12%
Below Grade Level	100%	95%	92%	77%	17%	5%	79%	60%	92%	86%	82%	71%

Note. Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 3

Percentage Distribution of ITBS Scores[a]

Work Study Skills

	Amelia Earhart		Sidney Lanier		K. B. Polk		Mark Twain		Maynard Jackson		Total Vanguard	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fourth Grade												
Above Grade Level	0%	12%	5%	9%	[illegible]	80%	8%	20%	1%	10%	9%	19%
At Grade Level	12%	12%	6%	31%	26%	17%	14%	18%	11%	21%	12%	22%
Below Grade Level	88%	76%	90%	60%	23%	3%	78%	62%	88%	69%	80%	59%
Fifth Grade												
Above Grade Level	0%	0%	4%	9%	72%	84%	11%	19%	1%	4%	10%	15%
At Grade Level	0%	7%	15%	24%	8%	8%	21%	27%	6%	13%	12%	18%
Below Grade Level	100%	93%	82%	67%	20%	8%	69%	54%	93%	83%	79%	66%
Sixth Grade												
Above Grade Level	0%	0%	3%	13%	72%	88%	11%	29%	2%	5%	11%	20%
At Grade Level	0%	0%	9%	11%	19%	5%	19%	14%	4%	10%	10%	10%
Below Grade Level	100%	100%	88%	76%	10%	7%	70%	58%	94%	85%	79%	70%

Note. Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 4

Percentage Distribution of ITBS Scores[a]

Language Skills

	Amelia Earhart		Sidney Lanier		K. B. Polk		Mark Twain		Maynard Jackson		Total Vanguard	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fourth Grade												
Above Grade Level	4%	17%	6%	15%	60%	89%	17%	33%	8%	22%	14%	29%
At Grade Level	13%	21%	17%	33%	29%	11%	14%	17%	16%	21%	17%	22%
Below Grade Level	83%	62%	77%	52%	12%	0%	69%	50%	76%	57%	69%	49%
Fifth Grade												
Above Grade Level	0%	0%	9%	16%	77%	92%	17%	25%	5%	8%	15%	21%
At Grade Level	0%	12%	10%	15%	11%	6%	26%	25%	10%	16%	13%	17%
Below Grade Level	100%	88%	81%	68%	11%	3%	57%	50%	85%	76%	72%	63%
Sixth Grade												
Above Grade Level	0%	0%	8%	10%	81%	86%	14%	26%	4%	8%	15%	20%
At Grade Level	6%	12%	6%	15%	17%	12%	15%	20%	8%	14%	10%	15%
Below Grade Level	94%	88%	86%	76%	2%	2%	71%	54%	88%	78%	75%	65%

Note. Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 5

Percentage Distribution of ITBS Scores[a]

Reading Comprehension

	Amelia Earhart		Sidney Lanier		K. B. Polk		Mark Twain		Maynard Jackson		Total Vanguard	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Fourth Grade												
Above Grade Level	8%	8%	7%	16%	63%	89%	15%	27%	6%	9%	14%	22%
At Grade Level	4%	25%	12%	24%	26%	6%	13%	15%	15%	25%	14%	21%
Below Grade Level	88%	67%	81%	60%	11%	6%	72%	58%	78%	66%	72%	57%
Fifth Grade												
Above Grade Level	0%	0%	10%	18%	83%	86%	19%	27%	2%	6%	15%	21%
At Grade Level	0%	6%	16%	24%	6%	8%	25%	21%	8%	15%	13%	18%
Below Grade Level	100%	94%	74%	58%	11%	6%	56%	52%	90%	79%	72%	62%
Sixth Grade												
Above Grade Level	0%	0%	5%	10%	69%	83%	15%	26%	2%	5%	12%	18%
At Grade Level	0%	5%	5%	16%	21%	12%	11%	15%	6%	10%	8%	13%
Below Grade Level	100%	95%	90%	74%	10%	5%	74%	59%	92%	85%	80%	69%

Note. Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Additional Information:

SE77-052-9-9 Evaluation of the 1976-77 Vanguard Schools, 1977, Johnny Lawton, Vickie Peters.

Abstract

Evaluation of the Title IV-C
Vanguard Instructional Program, 1976-77

Evaluator: C. LaVor Lym
Pamela J. Holden
Jacquelyn I. Burns

Objectives of the Program: In an order issued by the U. S. District Court for the Northern District of Texas, Dallas Division, on April 7, 1976, the Dallas Independent School District (DISD) was directed to convert four intermediate schools (grades 4 through 6) to magnets in which all students in the schools' attendance zones would be enrolled, with remaining student stations to be filled by students from elsewhere in the District. Those schools named in the court order were Maynard Jackson, Sidney Lanier, K. B. Polk, and Mark Twain. Subsequently, Vanguards were established at those schools, and an additional Vanguard was created at Amelia Earhart.

The DISD applied for and received federal funds under Title IV, Part C, of the Elementary and Secondary Education Act to design during 1976-77 "an instructional approach that sets forth the framework out of which curricula offerings can be provided to meet the needs of 4-6 grade students" in the Vanguards. Each Vanguard was organized around a special curriculum which was intended to be the force which would draw students from other schools, hopefully promoting desegregation within the Vanguards. Maynard Jackson became the Center for Individually Guided Education, Sidney Lanier the Center for Expressive Arts, and K. B. Polk the Center for Advanced Studies. Mark Twain became the Fundamental School and Amelia Earhart was a Montessori School.

Four objectives were adopted for the Vanguard Instructional Program:

1. The project staff would (a) identify the instructional goals of the Vanguards and (b) design curriculum strategies to realize the attainment of those goals.

2. The project staff would develop a curriculum framework of organizing generalizations which would ensure that all areas of learning focus on reinforcing and extending the skills in the District's baseline curriculum.

3. The project staff would develop criteria for selecting speciality enrichment programs.

4. The project staff would develop the Vanguard instructional approach accompanied by four magnet curricular offerings.

Purpose of the Evaluation: The evaluation of the Vanguard Instructional Program was designed (a) to monitor the activities undertaken by the project staff regarding fulfillment of the Program's objectives and (b) to assess the quality of the curriculum materials.

Evaluation Design: Monitoring the activities of the project staff was accomplished through periodic unstructured interviews with the staff members, particularly the project director. In February, 1977, the evaluators visited all Vanguard schools and interviewed a total of 21 school employees, consisting of principals (n=4), deans of instruction (n=2), and teachers (n=15). Purposive sampling, wherein administrators who were directly in charge of the Vanguards and teachers who were department heads or lead teachers, was used in the selection of sample elements.

Evaluation Results:

1. Were activities relating to the development of the Vanguard Instructional Program completed according to the proposed time schedule?

   The Vanguard Instructional Program involved three of the District's five Vanguard schools: Maynard Jackson Center for Individually Guided Education, Sidney Lanier Center for Expressive Arts, and Mark Twain Fundamental School. The two Vanguards which operated during 1976-77 which were not impacted by the Program were the K. B. Polk Center for Advanced Studies and the Amelia Earhart Montessori School. Exclusion of these schools, which appeared to be contrary to what was set forth in the project proposal, was at the discretion of the project director.

   The District's Baseline Curriculum was accepted as the curriculum framework for those schools involved in the Program, and unique speciality enrichment programs were adopted at two of the Vanguards (a creative arts program at Maynard Jackson and a citizenship education program at Mark Twain). Objectives and activities for the speciality enrichment programs were written by a team of four teachers from each of the two schools during the period June 6, 1977, to June 24, 1977.

   The project manager reported that most activities stipulated in the proposal and management plan were carried out according to the intended time schedule. Release of the final product (a printed document containing the instructional goals, curriculum strategies, curriculum frameworks, and objectives and activities for the special enrichment programs), which was scheduled for June 17, 1977, was delayed because teachers were not scheduled to complete their curriculum writing efforts until June 24, 1977.

2. What were the opinions of (a) a panel of curriculum experts external to the Dallas Independent School District and (b) Vanguard teachers regarding the Vanguard Instructional Program?

   Opinions regarding the quality of the Vanguard Instructional Program were not elicited from either external curriculum experts or Vanguard teachers since the final printed materials were not available until late in the summer, 1977.

Additional Information:

T477-055-9-9 Evaluation of the Title IV-C Vanguard Instructional Program, 1976-77, 1977, C. LaVor Lym, Pamela J. Holden, Jacquelyn I. Burns.

SE77-052-3-9 Evaluation of the 1976-77 Vanguard Schools, 1977, Johnny Lawton, Vickie Peters.

Abstract

Evaluation of the 1976-77 Academy Schools

Evaluator: Johnny Lawton
Vickie Peters

Objectives of the Program: Academies are middle schools with District-wide attendance zones which served grades seven and eight special curricula in some areas. The April 7, 1976, court order for desegregation of the Dallas Independent School District (DISD) dictated the establishment of Pearl C. Anderson Career Exploration Academy, Sequoyah Environmental Science Academy, and Oliver Wendell Holmes Classical Academy. The April, 1976 court order stated that the number of Black, Mexican-American and White students in each academy must equal the total student capacity of that school times the ratio of each group in the seventh- and eighth-grade population of DISD as of December 1, 1975, plus or minus 10%.

The three Academies were opened August, 1976. The Oliver Wendell Holmes Classical Academy operated as a "school within a school". Thus, it had a regular attendance zone in addition to the District-wide attendance zone of the Academy. A classical program, with emphasis on classical languages and literature, was offered at the O. W. Holmes Academy. Students accepted in the Academy were required to (a) demonstrate interest in the classical program, (b) have at least a B average, (c) have a previous attendance rate of 85% or better, and (d) have a favorable recommendation from the schools which they previously attended.

The curriculum at Pearl C. Anderson Career Exploration Academy emphasized basic academic skills in addition to career awareness and exploration of career fields. Admission was based on parental and student desire.

Sequoyah Environmental Science Academy was a freestanding school (only students enrolled in the Academy attend) and offered courses in botany, zoology, earth science, and ecology. Admission to the program was based on parental and student desire.

The schools were designed and were legislated to promote desegregation by encouraging students of all ethnic groups to let their interest draw them into an integrated setting.

Purpose of the Evaluation: The purpose of evaluating the Academies was to assure that DISD complied with the April 1976 desegregation court order and to provide timely information to District administrators.

Sample: The sample was drawn from all aspects of the Academy programs. Four Academy school administrators and two DISD Transportation officials were interviewed concerning their perceptions of the effectiveness of Academy transportation facilities. Classroom observations were made of all Academy classes at all Academy schools to discern the school's characteristics and

instructional program. A Research and Evaluation Data Technician extracted personal demographic information on all students from school records. Parents and guardians (N=289) were encouraged to express their opinion of the Academy program through Parent-Guardian Surveys; while teachers (N=42) expressed their opinion of the Academy program on Teacher Queationnaires.

Student achievement was measured by the Iowa Tests of Basic Skills (ITBS) September 15-29, 1977 (pretest) and April 25-May 6, 1977 (posttest).

Evaluation Design: Operation of the Academy program was assessed during two periods of process evaluation: one conducted October 11, 1976, through December 3, 1976. and another conducted January 17, 1977 through March 4, 1977. All Academy teachers, each of the three Academy principals, and one assistant principal, and two DISD Transportation officials were interviewed. Forty-two teachers and 289 parents received questionnaires soliciting their opinion of the Academy program.

Data for the process evaluations were analyzed by computing frequency distributions on the obtained information.

Evaluation Results

1. What were the characteristics of the Academy schools?

   The Academies received students primarily from their immediate neighborhood environment and, therefore were demographically characteristic of their immediate location. O. W. Holmes, Sequoyah, and P. C. Anderson were located in predominantly Black populated areas and had primarily Black students: 84%, 68%, and 95% respectively. According to a Teacher Questionnaire, Academy teachers were mostly White (51%), female (67%), had over 11 years teaching experience (51%) and held Master's degrees. Differences included a predominantly Black, male teaching staff (60% Black and 59% male) at P. C. Anderson and a less experienced teaching staff (42% with 1-3 years teaching experience) at O. W. Holmes. The principals at all three Academies were primarily Black ethnic members (75%), male (100%), had approximately 9 years teaching experience with Master's degrees.

   Academy students were primarily from East Oak Cliff (O. W. Holmes), Northwest Dallas (Sequoyah) and Southwest Dallas (P. C. Anderson).

   One hundred fifty students (32% of all Academy students) transported were driven to Academy schools by DISD county-based buses, Highland Hills Transportation Company, students' parents, or other means. Their presence only slightly affected the White-non-White ratio.

2. Of what did the instructional program at each Academy consist?

Each of the three Academy schools featured a special curriculum. At the Pearl C. Anderson Career Exploration Academy, mathematics, social studies, and science were taught with career-oriented materials. Career core, a class for career exploration, was designed to teach students in self-awareness and job-related concepts and to introduce students to 15 career areas. The Oliver Wendell Holmes Classical Academy offered a curriculum that stressed the classics. The DISD Baseline was the foundation of the curriculum in mathematics, language arts, science, and social studies. Supplemental materials emphasizing the classics and humanities were used in the classes. Foreign language instruction in Spanish, French, German, Greek, and Latin was also part of the curriculum at the Classical Academy. The curriculum at the Sequoyah Environmental Academy was based on the DISD Baseline with enrichment from teachers to stress environmental sciences. The science curriculum involved the DISD Baseline with extensive enrichment to offer experiences in earth sciences, meteorology, geology, astronomy, zoology, and botany. Leadership training was an integral part of the coursework at Sequoyah.

3. What was the level of performance of Academy students on a standardized achievement battery?

In general, Academy students tested with the ITBS were found to be two years to two and one-half years below grade level in the fall, 1976, and one year to one and one-half years below grade level in the spring, 1977. Sequoyah and P. C. Anderson were almost three years below grade level, in some areas of the ITBS, in the fall, 1977.

When Academy students pretest scores and posttest scores were perceived at "below grade level," "at grade level," and "above grade level"; some notable changes were seen.

As shown in Tables 1-5, students at "above grade level" increased an average of 6%, students "at grade level" increased an average of 3%, and "below grade level" decreased an average of 6%. Large changes were seen in Vocabulary and Work Task Study Skills, while minor changes were seen in Reading Comprehension and Language Skills.

4. What was the effect of enrollment in the Academies on the attendance of students?

Absenteeism ranged from 0 days (N=58) to 103 days (N=1) and averaged 8 days (SD=11.92) for Academy students. The least days absent was for O. W. Holmes (an average of 4.0 days), while the most days absent was for Sequoyah (an average of 17.0 days).

5. Did the discipline of Academy students improve?

Both parents and teachers reported an improvement in student discipline. Fifty-nine percent of Academy parents responding to a Academy Parent-Guardian Survey reported that their child's discipline improved during the shcool year 1976-77.

At the beginning of the 1976-77 school year teachers noted that discipline was a problem at some schools. At the end of the school year 45% of all Academy teachers who responded to a Teacher Questionnaire believed that discipline was a problem. Discipline was reported to be a problem at O. W. Holmes and P. C. Anderson but not at Sequoyah. There was no difference between ethnic groups perceiving discipline as a problem, but males thought discipline to be more of a problem than females. In essence, there was reported improvement in discipline for Academy students but the specific amount attributable to the Academy was not precisely measurable.

6. Were parents of Academy students more involved in their child's school?

All Academy schools have an active Parent Advisory Committee or Parent Teacher Association and a volunteer program. Twenty-two Academy respondents (8%) stated that they were Parent Advisory Committee members; and 98 (34%) were Parent Teacher Association members. Forty six (16%) have participated as volunteers or in some other assisting relationship. When specific participation was analyzed most of the above group performed various tasks, e.g., baking cookies, providing transportation on field trips. Sixty nine (6%) helped to design the Academy program at their child's school. Three respondents stated that their primary role was to attend transition meetings when Dallas began desegregating. There is not sufficient information here to determine whether Academy parents are more involved in their child's school.

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7. Did Academy student involvement in the program extend into extra curricular activities?

Oliver Wendell Holmes Classical Academy, Sequoyah Environmental Science Academy and Pearl C. Anderson Career Exploration Academy all had extra curricular activities that mentally and physically challenged their students. Many activities were held during class or between classes but a large number were held after school hours. When activities were held after school, transported students without transportation were often denied an opportunity to participate. This is because DISD does not provide transportation for Academy students when students remain after school hours. [DISD Transportation officials stated that no Academy school administrator has requested transportation for transported students to participate in after school activities.]

When parents of Academy students were asked if their child participated in after school activities, 42% (N=120) said "yes" and 53% (N=153) said "no". Those who participate in after school activities provided their own transportation: private auto (16%), walk (23%), other (4%).

Table 1

Percentage Distribution of ITBS Scores[a]
Vocabulary

	O.W. Holmes		Sequoyah		P. C. Anderson		Total Academy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Seventh Grade								
Above Grade Level	33%	47%	9%	14%	2%	2%	14%	20%
At Grade Level	24%	30%	23%	18%	4%	8%	14%	17%
Below Grade Level	43%	21%	68%	68%	94%	91%	73%	63%
Eighth Grade								
Above Grade Level	19%	31%	8%	13%	3%	4%	9%	15%
At Grade Level	22%	20%	13%	13%	14%	5%	11%	11%
Below Grade Level	59%	49%	79%	75%	94%	91%	81%	75%

NOTE: Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 3

Percentage Distribution of ITBS Scores[a]

Work Study Skills

	O.W. Holmes		Sequoyah		P. C. Anderson		Total Academy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Seventh Grade								
Above Grade Level	33%	52%	10%	14%	2%	4%	14%	22%
At Grade Level	26%	16%	10%	5%	3%	3%	12%	8%
Below Grade Level	41%	33%	81%	81%	95%	93%	74%	70%
Eighth Grade								
Above Grade Level	19%	30%	9%	8%	1%	4%	8%	14%
At Grade Level	19%	17%	4%	8%	4%	8%	9%	12%
Below Grade Level	63%	53%	87%	83%	95%	88%	82%	74%

NOTE: Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 2

Percentage Distribution of ITBS Scores[a]

Mathematics Skills

	O.W. Holmes		Sequoyah		P. C. Anderson		Total Academy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
				Seventh Grade				
Above Grade Level	20%	36%	14%	10%	0%	1%	9%	15%
At Grade Level	23%	23%	0%	0%	2%	3%	9%	10%
Below Grade Level	57%	40%	86%	90%	98%	96%	82%	75%
				Eighth Grade				
Above Grade Level	14%	23%	0%	4%	1%	2%	6%	10%
At Grade Level	15%	19%	4%	9%	1%	11%	6%	14%
Below Grade Level	71%	58%	96%	87%	98%	87%	88%	76%

NOTE: Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a]Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 4

Percentage Distribution of ITBS Scores[a]

Language Skills

	O.W. Holmes		Sequoyah		P. C. Anderson		Total Academy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
				Seventh Grade				
Above Grade Level	33%	47%	10%	9%	1%	2%	14%	19%
At Grade Level	30%	27%	5%	0%	6%	5%	15%	13%
Below Grade Level	37%	26%	86%	91%	93%	93%	72%	68%
				Eighth Grade				
Above Grade Level	17%	27%	0%	5%	1%	6%	7%	13%
At Grade Level	19%	20%	5%	14%	6%	8%	10%	13%
Below Grade Level	60%	53%	95%	81%	93%	87%	83%	74%

NOTE: Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Table 5

Percentage Distribution of ITBS Scores[a]

Reading Comprehension

	O.W. Holmes		Sequoyah		P. C. Anderson		Total Academy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Seventh Grade								
Above Grade Level	31%	46%	18%	14%	1%	4%	14%	20%
At Grade Level	23%	23%	9%	14%	7%	4%	13%	12%
Below Grade Level	46%	30%	73%	73%	92%	93%	73%	68%
Eighth Grade								
Above Grade Level	20%	30%	8%	12%	1%	4%	9%	14%
At Grade Level	16%	17%	4%	0%	2%	3%	7%	8%
Below Grade Level	64%	52%	88%	88%	97%	94%	85%	79%

NOTE: Grade levels were collapsed and grade levels ranging from 7.0 to 7.9 became grade level 7.0, grade levels ranging from 8.0 to 8.9 became 8.0, etc. The collapsed grade levels became "below grade level", "at grade level", and "above grade level". "Below grade level" scores are those lower than that particular grade level, "at grade level" scores are those within the particular grade level, and "above grade level" scores are those scores beyond a particular grade level.

[a] Totals do not sum to 100% because percentages were rounded and missing data excluded.

Additional Information:

SE77-053-9-9 Evaluation of the 1976-77 Academy Schools, 1977, Johnny Lawton, Vickie Peters.

Abstract

Evaluation of the Title IV-C Academy Program of Resource Materials and Media, 1976-77

Evaluator: C. LaVor Lym
Pamela J. Holden
Jacquelyn I. Burns

Objectives of the Program: In an order issued by the U.S. District Court for the Northern District of Texas, Dallas Division, on April 7, 1976, the Dallas Independent School District (DISD) was directed to establish magnet middle schools (grades 7 and 8), or Academies, at Pearl C. Anderson, Sequoyah, and Oliver Wendell Holmes. The Academies were to have no established attendance zones; instead, they were to be open to application for admission of any seventh- or eighth-grade student in the District. The Academies were subsequently organized and began receiving students at the opening of school in 1976-77.

The DISD applied for and received federal funds under Title IV, Part C, of the Elementary and Secondary Education Act "to develop alternative curriculum programs for these academies...in the areas of social studies, mathematics, science and health, language arts, and creative arts that extend program offerings in those academies beyond those provided in regular 7-8 schools." Each Academy was organized around a special curriculum which was intended to be the force which would draw students from other schools, hopefully resulting in an integrated student population. Pearl C. Anderson became the Career Exploration Academy, Oliver Wendell Holmes the Classical Academy, and Sequoyah the Environmental Sciences Academy.

After an amendment to the original proposal, two objectives were finally adopted for the Academy Program of Resource Materials and Media:

1. A curriculum framework of organizing generalizations would be developed which would ensure that all areas of learning in the Academies focus on reinforcing and extending the skills in the District's baseline curriculum.
2. Student-directed modules in social studies, science, language arts, and mathematics would be developed with at least four levels of difficulty for each mastery objective.

Purpose of the Evaluation: The evaluation of the Academy Program of Resource Materials and Media was designed (a) to monitor the activities undertaken by the project staff regarding fulfillment of the Program's objectives and (b) to assess the quality of the curriculum materials.

Evaluation Design: Monitoring the activities of the project staff was accomplished through periodic unstructured interviews with the staff members, particularly the project director. In February, 1977, the evaluators visited all Academies and interviewed a total of 13 school employees, consisting of principals (n=2), deans of instruction (n=2), and teachers (n=9). Purposive sampling, wherein administrators who were directly in charge of the Academies and teachers who were department heads or lead teachers, was used in the selection of sample elements.

Evaluation Results:

1. Were activities relating to the development of the Academy Program of Resource Materials and Media implemented as proposed?

   Development of curriculum frameworks and student-directed modules under the Academy Program of Resource Materials and Media was limited to two of the three Academies in the District. The project involved Oliver Wendell Holmes Classical Academy and Sequoyah Environmental Sciences Academy; not involved in the project was the Pearl C. Anderson Career Exploration Academy. Exclusion of the latter school, which appeared to be contrary to what was set forth in the project proposal, was at the discretion of the project director.

   Two project staff members, one at each Academy, worked directly with the Academy teachers to organize curriculum frameworks and provide technical supportive services in curriculum organization. Student-directed modules were devised by teams of teachers during a curriculum writing session held from June 6, 1977, to June 24, 1977. Diagnostic instruments (i.e., tests) for the modules were not developed; the project director reported they would be written sometime in the future.

   Except for the development of diagnostic instruments, all activities for the project were initiated and carried out. Some, however, were completed after the intended date (e.g., development and revision of the curriculum frameworks). Nevertheless, these slippages in no way created problems for the project staff, nor did they limit the products which were developed by the project staff and teachers.

2. What were the opinions of (a) a panel of curriculum experts external to the Dallas Independent School District and (b) Academy teachers regarding the curriculum frameworks and student-directed modules?

   Opinions regarding the quality of the curriculum frameworks and student-directed modules were not elicited from either external curriculum experts or Academy teachers since the materials were not available until late in the summer, 1977.

Additional Information:

T477-060-3-9 Evaluation of the Title IV-C Academy Program of Resource Materials and Media, 1976-77, 1977 C. LaVor Lym, Pamela J. Holden, Jacquelyn I. Burns.

SE77-053-3-9 Evaluation of the 1976-77 Academy Schools, 1977, Johnny Lawton, Vickie Peters.

SE77-114-3-7

Abstract

1976-77 Evaluation of the
Arts Magnet High School

Evaluator: Diana D. Schmidt

Objectives of the Program: The Arts Magnet High School (AMHS) is one of the four magnet high schools opened in the fall of 1976 as part of the U.S. District Court desegregation plan of April 7, 1976. The AMHS facility is located in a renovated school structure on the fringe of the central business district allowing access to students from throughout the District as well as proximity to cultural facilities. Students from throughout the District enroll in the AMHS voluntarily based upon their expressed interest in the programs offered at the school. In this way, the school attracts students from all ethnic groups and skill levels.

The program at the AMHS offers students a choice of a concentration in one or more of four areas of study: dance, drama, music, and visual arts. Community arts facilities and personnel are used as living laboritories for students desiring specialized training in arts-related fields. The school attracts interested and talented students by enlisting the expertise of experienced teachers and active professionals and by offering students "hands-on" training through experiences in dramatic, musical, and dance productions, and production and exhibition of art works.

The beginning student engages in exploratory activities and preparatory courses within his or her identified field. Advanced students are provided with opportunities to expand creative emphasis, engage in skills development, and participate in pre-employment experiences. The school curriculum also includes all academic courses required for high school graduation and college entrance. Wherever possible, academic course material includes relationships between the four fields of art and academic curriculum.

An emphasis at the AMHS is the discovery of one's own creative ability and the refinement of creative talent. A major instructional objective is to unify the four art disciplines dealt with at the AMHS. This is achieved, in part, through a course entitled Integration of Abilities which is taken by all students. The curriculum of the course offers each student a chance to see the interrelationship of each of the disciplines within the arts.

Purpose of the Evaluation: The purpose of the 1976-77 Evaluation of the Arts Magnet High School was to collect and disseminate program information to project management as an aid for decision-making. The CIPP (Context, Input, Process, Product) model was utilized for this evaluation. Demographic information on the student body and instructional staff were gathered for context data. Process information included data on the AMHS facility and materials, recruitment, student experiences, curriculum, and instructor attitudes. The product data collected served project management with information on their student body regarding academic levels. This feedback was intended to lend support to project management in future program refinement.

Sample: The entire AMHS student body and instructional staff served as a sample for the context report. All students and instructors at the magnet during the first academic quarter were included. During the fall semester, the AMHS had 794 students enrolled and a full-time instructional staff of 35 and a part-time instructional staff of 38. Information sheets distributed to all students and instructors were used to gather data on the sample. Process data on the AMHS curriculum were gathered through classroom observation. A total of 31 classes were visited for this purpose. This number included 12 academic classes and 19 cluster classes. One of each type of academic class was visited. Also the sample was constructed to include a class of each academic instructor. Four to five classes were visited in each of the four clusters and an attempt was made to get theory as well as "hands-on" classes and a non-duplication of instructors.

Product data were collected through the use of three instruments. The sample for the Everyday Skills Tests (EST) was composed of all students present during November 1-3, 1976. A total of 658 ninth through twelfth grade students took the EST. The Iowa Tests of Educational Development (ITED) were administered to all ninth and twelfth grade students at the AMHS. The Graves Design Judgement Test was administered to all Visual Arts students on a pre/posttest format. The pretest sample was 228, and the posttest sample totaled 143.

Evaluation Design: Two evaluation questions composed the context portion of the evaluation.

1. What are the characteristics of the students enrolled in the AMHS?
2. What are the characteristics of the AMHS instructional staff?

Data on the student body were collected through November 12, 1976. Demographic information gathered included, sex, ethnicity, grade, cluster, part-time/full-time status, home school, and home school district. Information received from the instructional staff during October 1-8, 1976 consisted of sex, age, ethnicity, cluster, education, years of teaching experience, and years of non-teaching cluster-related work experience.

Observation schedules were developed to gather process material concerning adequacy of facilities/supplies/materials, AMHS and magnet recruitment programs, classroom observation, curriculum development, and instructors' impressions. Data on facilities and instructors' impressions were collected once during each of the two academic quarters. Student experience data were gathered from information sheets provided throughout the year by each instructor whose students were involved in such programs. Seven process questions were addressed in the evaluation.

3. Were the necessary facilities, supplies, and materials needed for the instructional process obtained?

4. What type of recruitment program was established and implemented in order to obtain quality students and comply with court-ordered specifications?

5. What are the requirements for entry into the AMHS?

6. To what extent were students provided with adequate first-hand experience to learn about careers in the arts?

7. What are the characteristics of the learning activities in the classes at the AMHS?

8. What is the extent of curriculum development for courses taught at the AMHS?

9. What are students' and instructors' concerns regarding the AMHS program?

Product evaluation sought to determine the performance levels of the AMHS student with regard to several academic areas. In addition, improvement on curriculum-related tests was also monitored in the Visual Arts cluster. The three product evaluation questions related to this purpose are:

10. What was student performance as measured by the Iowa Tests of Educational Development (ITED)?

11. To what extent did students demonstrate mastery on the mathematics and reading subscales of the Everyday Skills Tests (EST)?

12. To what extent did Visual Arts students demonstrate improvement on the curriculum-related Graves Design Judgment Test?

Evaluation Results:

1. Table 1 shows the major demographic characteristics of the AMHS student body. The total ethnic breakdown is 41.7% Anglo, 50.4% Black, 6.8% Mexican-American. The dance cluster is the only cluster to differ appreciably from this ratio with 75.6% Black. Overall, enrollment is 60% partime and 40% fulltime with the Music and theater clusters having the larger percentages of fulltime students. Not represented in Table 1 are home school and home school district data. Home school district is the high school district in which the student resides. Home school is the high school which maintains the students' records and differs from home school district because of curriculum or Majority to Minority transfers. South Oak Cliff is the home school district with the largest representation at the AMHS with nearly 15%. The largest percentage of students at the AMHS have Skyline as their home school.

Table 1

Arts Magnet High School
Student Body Characteristics

CHARACTERISTIC	CLUSTER								TOTAL	
	Visual Arts		Music		Dance		Theater			
	#	%	#	%	#	%	#	%	#	%
SEX										
Female	164	52.2	97	46.0	115	94.3	94	64.4	470	59.2
Male	150	47.8	114	54.0	8	5.7	52	35.6	324	40.8
RACE										
Anglo	129	41.1	98	46.6	27	22.0	77	52.7	331	41.7
Black	155	49.4	94	44.5	93	75.6	58	39.7	400	50.4
Mexican-American	24	7.6	17	8.1	3	2.4	10	6.8	54	6.8
American Indian	2	0.6	0	-	0	-	0	-	2	0.2
Oriental	0	-	1	0.5	0	-	0	-	1	0.1
Other	4	1.3	1	0.5	0	-	1	0.7	6	0.8
GRADE										
Ninth	141	44.9	73	34.6	39	31.7	57	39.0	310	39.0
Tenth	71	22.6	50	23.7	45	36.6	46	31.5	212	26.7
Eleventh	54	17.2	44	20.9	20	16.3	22	15.1	140	17.6
Twelfth	48	15.3	44	20.9	19	15.4	21	14.4	132	16.6
TRANSPORTATION										
Bus	199	63.4	136	64.5	89	72.4	98	67.1	522	65.7
Other	32	10.2	49	23.2	10	8.1	21	14.4	112	14.1
Combination	83	26.4	26	12.3	24	19.5	27	18.5	160	20.2
PART-/FULL-TIME STATUS										
Part-time	204	65.0	111	52.6	83	67.5	82	56.2	480	60.5
Full-time	110	35.0	100	47.4	40	32.5	64	43.8	314	39.5
TOTALS										
Number	314		211		123		146		794	
Percent	39.5		26.6		15.5		18.4		100.0	

2. The AMHS instructional staff is composed of 35 fulltime instructors 25 of which are cluster instructors and 10 are academic instructors. The instructional staff also includes 38 parttime instructors who assist and instruct in cluster courses. The fulltime and parttime cluster instructors are predominately Anglo (fulltime: 18 Anglo, 4 Black, 3 Mexican-American; parttime: 32 Anglo, 4 Black, 2 Mexican-American). The academic teacher's ethnic breakdown is 5 Black, 4 Anglo, and 1 Mexican-American. Ten fulltime cluster instructors have Bachelor's degrees and 15 have advanced degrees. Seven of the academic instructors have Bachelor's degrees, three have Master's degrees. The average number of years teaching experience for AMHS fulltime instructors is 7.8 years. For cluster instructors the average is 8.4 years, and for academic instructors the average is 6.5 years.

3. Several areas of the AMHS facility were rated on two occassions during the school year. With the exception of the student mural project enhancing the appearance of the halls and the addition of library reference materials, the facility remained essentially unchanged from fall to spring. The size of the facility which caused many classrooms to be crowded and in temporary locations was the aspect of the facility most noticeably deficient. Also of note were the time-worn restroom facilities and the often observed lack of decorum and organization of the attendance and counseling offices. The results of a materials/supply survey found that a majority of orders for needs were complete. Most often mentioned by cluster instructors as lacking was equipment and secondly texts and audio-visual materials. Academic instructors expressed needs in the area of textbooks and general office supplies. Several instructors from both the cluster and academic areas mentioned the need for more library reference materials.

4. The AMHS participated in the recruitment programs at the middle and senior high schools which were held to inform students of the magnets and the Skyline Career Development Center (CDC). The format adopted by the majority of the middle and senior high schools began with an introduction to all students giving general information followed by magnet and CDC representatives visiting classrooms to answer questions. Participants voiced complaints about this format as they felt the students were not adequately prepared to be considering their future education choices. In addition, the division of magnet and CDC representatives left many classes without representation and information on several of the schools. The AMHS followed this program with an Open House for interested prospective students and parents which allowed visitors a chance to see actual projects of the students. After the application period, students who had been accepted and their parents were invited to a placement session in which the new student was allowed a closer opportunity to see his/her cluster and its program.

5. Prior to the 1976-77 school year the sole entry requirement was student interest. This interest was shown through completion of an application for enrollment in the AMHS. During the year, "interest" was further defined as encompassing commitment, motivation, and aptitude. Many students who had not shown such interest by the end of the first quarter returned to their home schools. Placement interviews for the incoming 1977-78 class have been initiated to determine the extent of student interest.

6. Students at the AMHS were offered abundant and continual first-hand experiences to learn about professions in the arts. All AMHS students had the opportunity throughout the year to have active professionals in the field of dance, drama, music, and visual arts as their instructors. Students in all four clusters were involved in numerous productions and exhibits within the school as well as at other schools throughout the District. Also, students were able to perform at many Dallas civic centers and participate in programs at other arts centers and colleges.

   Field trips were also an integral part of the AMHS students education. These field trips were related to academic areas as well as the arts areas and allowed students the opportunity to see the arts and its professionals in action. Several of the more advanced and talented students had the additional opportunity to work in actual work experiences with professionals.

7. In both the academic and cluster classes visited, attendance was noticeably less than actual enrollment. A number of instructors noted that this was due at least in part to the various scheduled field trips and rehearsal activities. The ethnic composition in the majority of classes was reflective of the total school ratio with three exceptions: (1) five of the twelve academic classes had from 60 to 100 percent of one ethnic group, (2) classes in the dance cluster were majority Black, and (3) classes in the theater cluster were majority Anglo. The dominant method of student learning in cluster classes was individual and/or several groups as opposed to the single group method in the academic classes. Also, students were involved in hands-on activities in cluster classes and there was a considerably larger percentage of on-task students in clusters. The disturbances observed in academic classes appeared to be due in part to crowded classes and more than one level of a course in the same class. Disruptions observed in clusters (mostly in dance and Integration of Abilities classes) were the result of student tardiness and students wandering through classes in session.

8. The initial curriculum development plan was for writing activity in all four clusters as well as Integration of Abilities (IA) and World History. Instructors wrote curriculum during the year with the guidance and assistance of the curriculum writer. Revision work was done on the IA curriculum (which was written during the

preceding summer) and it is now complete. The major thrust in curriculum development has been in the area of dance. Although portions of the courses have been written, a unified philosophy within the cluster needs to be developed before the curriculum can be completed. Updating work has been done and is continuing now on the existing visual arts curriculum. Writing is also in progress on new courses which have been added to the curriculum. There was no writing activity in the theater or music clusters during the year. Summer work is planned, however, in these areas. No curriculum development activity was scheduled for World History as its focus has not yet been determined and no experienced instructors were available during the year to work on its development.

9. Student attitude as reported through instructors was felt to be generally good, especially that of the interested and achieving student. Concerns which students had expressed to instructors included: the overcrowding and incompleteness of the facility, the presence of uninterested and unskilled students, lack of academic personnel to accommodate various academic levels and needs, need for more challenging courses for skilled students, and incompleteness of library. The concerns of the instructors paralleled those of the students fairly closely. The two major points mentioned by instructors were concern over the quality and dedication of some of the students and need for more careful standards of student acceptances.

10. Table 2 presents a summary of the 1976 ITED fall testing results for ninth and twelfth grade AMHS students and the entire DISD. It should be emphasized that these scores were program entry level scores and do not reflect achievement which could be attributed to the AMHS. Scores for the ninth-grade students reveal that AMHS students generally scored slightly above the mean on the six areas measured by the ITED. At the twelfth grade level AMHS students consistently scored higher than the mean for all twelfth grade DISD students. In general, test results suggest that, at the beginning of the school year, AMHS students were academically better prepared than the average DISD student.

11. The Everyday Skills Tests (EST) were administered to the AMHS students during the 1976 Fall Quarter to determine entry level skills related to the areas of reading and mathematics. Each subtest of the EST is a criterion-referenced test which tests reading and mathematics skills required for effective participation in todays' society. The EST is composed of two subtests, reading and mathematics, each including 15 behavioral objectives. Each subtest has 45 test questions with three questions designed to measure each objective. A student was said to have mastered an objective when at least two of the three questions were answered correctly. Results of the EST showed that students performed at a high level of mastery on the reading subtest and a slightly lower level on the mathematics subtest. Figure 1 shows school-wide mastery on the reading subtest

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Table 2

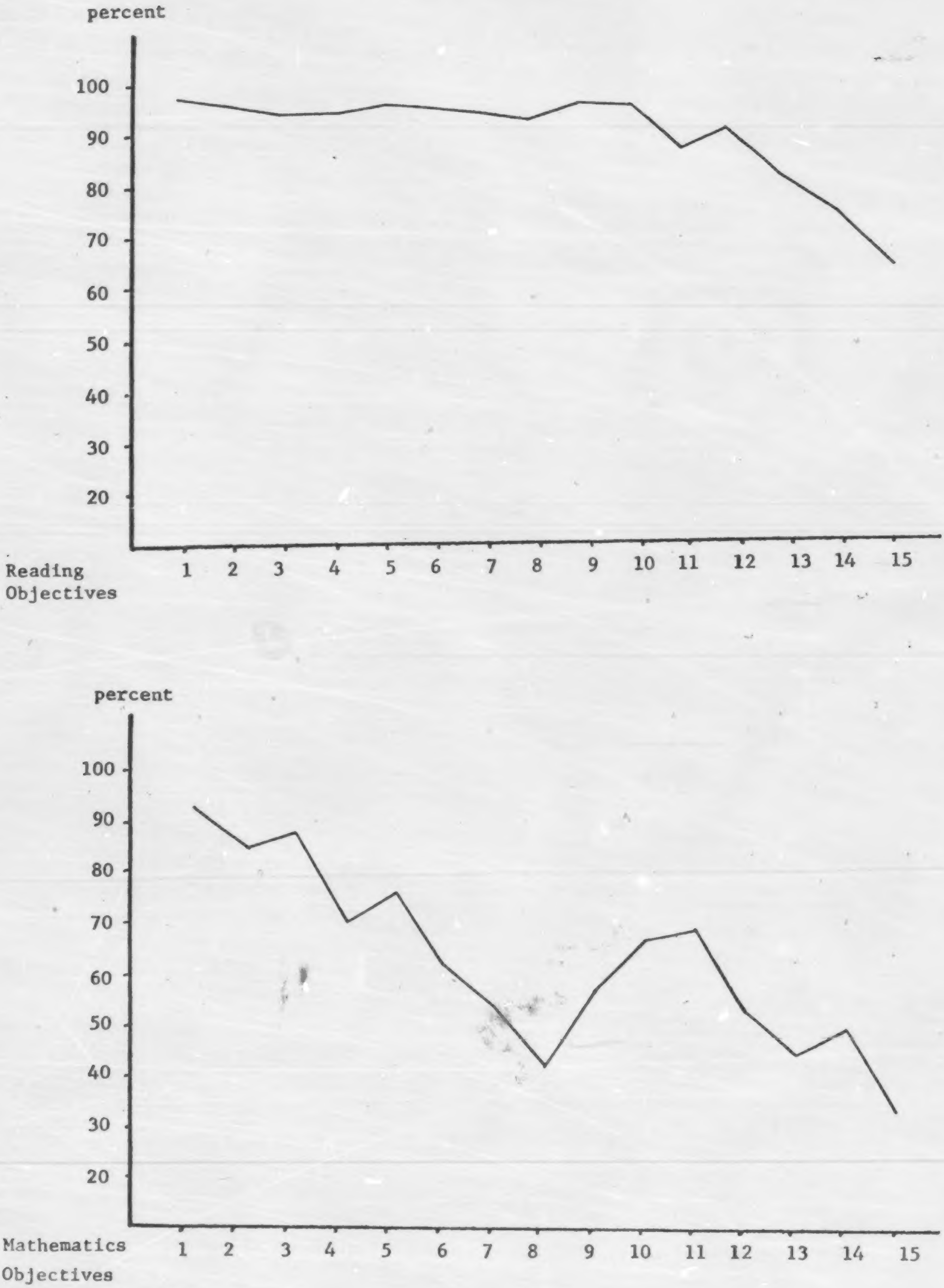
Summary of ITED Raw Score Means, Standard Deviations and Large City Percentiles for the Arts Magnet High School and for the Total DISD Population

School	Reading Comprehension (90 Items)			Language Usage (90 Items)			Mathematics (36 Items)			Social Studies (48 Items)			Science (48 Items)			Use of Sources (46 Items)		
	$\bar{X}$	SD	P*	$\bar{X}$	SD	P	$\bar{X}$	SD	P	$\bar{X}$	SD	P	$\bar{X}$	SD	P	$\bar{X}$	SD	P
9th Grade																		
AMHS	29.4	17.6	43	28.1	15.4	39	7.9	5.1	44	14.8	7.1	43	15.4	8.4	35	15.1	7.9	38
DISD Total	27.6	13.7	40	27.2	12.2	36	7.9	4.1	44	14.1	5.8	33	14.4	6.8	30	14.8	6.4	38
12th Grade																		
AMHS	51.8	24.1	54	44.6	21.3	47	13.3	7.9	53	24.0	9.5	52	24.5	11.5	50	25.2	10.5	55
DISD Total	41.9	21.1	40	39.7	17.9	38	11.8	7.3	49	20.0	8.7	36	20.9	10.1	40	21.2	9.2	43

*Large-city percentile

Figure 1

Everyday Skills Tests
Arts Magnet High School - Composite



was above 90% for 11 of the 15 objectives and declined to a low point of 60% on the fifteenth objective. Also shown on Figure 1 is the lower level of mastery on the mathematics subscale. Overall student mastery was above 80% only on the first three objectives and seven objectives failed to be mastered by more than 60% of the students.

12. The Graves Design Judgment Test was administered to students in the visual arts cluster. The test, which is composed of 90 multiple choice questions, evaluates the degree to which students perceive and respond to "the basic principles of aesthetic order--unity, dominance, variety, balance, continuity, symmetry, proportion, and rhythm." Results of the test are illustrated by grade in Table 3. For the 122 matched pre- and posttest scores, the posttest mean gained nearly three points over the pre-test mean.

Table 3

Graves Design Judgment Test
Matched Pre- and Posttest Scores by Grade

Grade	N	Pretest Mean	Posttest Mean	Pretest SD	Posttest SD
9	85	48.21	51.95	12.76	14.41
10	25	48.64	50.88	14.14	16.10
11	8	48.63	43.25	13.43	16.10
12	4	52.00	56.75	15.30	13.88
Total	122	48.45	51.32	13.20	15.05

Additional Information:

SE77-114-9-7 1976-77 Evaluation of the Arts Magnet High School, 1977, Diana D. Schmidt, Wayne R. Murray.

Abstract

1976-77 Evaluation of the Business-Management Center

Evaluators: G. Kay Maxwell
Wayne R. Murray

Objectives of the Program: Located in a partially renovated structure near the heart of the central business district, the Business-Management Center (BMC) is one of the Dallas Independent School District (DISD) magnet schools created as a result of the April 7, 1976, desegregation plan mandated by the U.S. District Court for the Northern District of Texas. In conjunction with other DISD magnet schools, the BMC was designed to effect an appropriate balance among ethnic groups through voluntary participation of students in educational programs not generally available. More specifically, the school was designed to give students in grades nine through twelve the opportunity to obtain communication, organization, and management skills in preparation for entering a business career and/or for pursuing advanced study after high school graduation. Toward this end, the Business-Management Center during the 1976-77 school year offered career exploration and learning activities in the areas of Experience-Based Career Education (EBCE), Office Careers (OC), and Marketing/Management (M/M).

With an eye toward limitations imposed by the capacity of the facility and the U.S. District Court, students were admitted to the Business-Management Center on a first-come-first-serve basis. Attendance was permitted on a part-time and a full-time basis. Part-time students received instruction at the BMC only in career exploration/career cluster areas, while full-time students received instruction in the academic areas as well. In each instance, students so inclined were able to pursue preparation for a selected career area while working toward satisfaction of college entrance requirements.

Purpose of the Evaluation: The 1976-77 evaluation of the Business-Management Center was implemented to delineate and disseminate useful information with regard to students and staff, program implementation details, and student achievement in knowledge and skill areas. With this purpose in mind, evaluation efforts were structured upon a modified form of the Context, Input, Process, Product (CIPP) evaluation model developed by Stufflebeam and others.

The context portion of the BMC evaluation was devoted to detailed information concerning the composition of the student body and the instructional staff. The process portion was an effort to document a variety of activities that were part of the Business-Management Center start-up effort. The product evaluation was an attempt to develop objective comment relative to

the performance of students who chose to attend the BMC during its first year of operation.

In general, it was the intent of the evaluation effort to provide periodic feedback throughout the school year to project management and other decision-makers. It was anticipated that the data would provide information useful to those charged with the responsibility of program refinement.

Sample: All students enrolled at the Business-Management Center during the 1976 fall quarter comprised the population of interest for the student portion of the context evaluation. Similarly, all those who were members of the Business-Management Center instructional staff during the 1976 fall quarter were included in the staffing portion of the context evaluation.

Process evaluation for the Business-Management Center focused primarily on the three career-oriented areas and related activities. Some attention, however, was devoted to activities of the school's academic component.

The product portion of the evaluation was comprised of three parts. In each instance, data were collected only for the portion of the BMC student population designated by the evaluation design.

Evaluation Design: The context evaluation for the Business-Management Center involved the development and maintenance of a file for each member of the student population and each member of the instructional staff. In both instances, data were collected by means of a survey instrument. Information collected with regard to students included name, student indentification number, sex, ethnicity, grade level, and attendance status. Among instructor variables of interest were sex, ethnicity, age, educational background, and teaching experience. The context evaluation questions were as follows.

1. What were the characteristics of students enrolled at the Business-Management Center?

2. What were the characteristics of the instructional staff at the Business-Management Center?

As previously indicated, the intent of the process portion of the evaluation was to identify and document a variety of topics of import with regard to BMC daily pursuits during its first year of operation. Documented observations, personal interviews, and survey instruments were used in collecting data for this portion of the evaluation. Scope of instructional offerings, status of facilities and materials, characteristics of career exploratory activities, characteristics of classroom activities, staff involvement in curriculum development, staff involvement in recruitment of students, and student entrance requirements were among topics examined. The evaluation questions of interest were as follows.

3. What was the scope of the instructional offerings?

4. Were the facilities, materials, and equipment adequate for an orderly instructional process?

5. What were the characteristics of career exploratory activities?

6. To what extent was the prescribed curriculum implemented in the classrooms?

7. To what extent was the instructional staff involved in curriculum development?

8. To what extent was the school faculty involved in recruitment of students for the 1977-78 school year?

9. What were student entrance requirements at the Business-Management Center?

The product portion of the Business-Management Center evaluation was designed to facilitate description of three facets of student achievement. In the fall of 1976, attention was focused on standardized achievement test scores of ninth and twelfth grade students attending the Business-Management Center. At the same time, interest was directed toward student mastery of basic skills as measured by specified reading and mathematics scales administered to a sample of the student population. During the spring of 1977, student achievement on standardized curriculum-related tests in typewriting and accounting was the area of interest. Examination of student performance in these areas was pursued in terms of the following evaluation questions.

10. What was student performance as measured by the Iowa Tests of Educational Development?

11. To what extent did students demonstrate mastery as measured by reading and mathematics subscales of the Everyday Skills Tests?

12. To what extent did students demonstrate mastery on standardized subject area or curriculum-related tests?

Evaluation Results:

1. Student responses on the survey date showed that 1526 students were enrolled at the Business-Management Center. Table 1 presents a summary description of the students.

   Review of the data indicated that membership in the Office Careers cluster accounted for over 70% of the school's enrollment. Additionally, it was noted that approximately 85% of the population was female. Further, results revealed that over 68% of the 1976 fall quarter population was Black.

Table 1

Summary Description of BMC Student Population

Category	Number of Students	Percent of Total
Grade		
Nine	534	35.0
Ten	508	33.3
Eleven	319	20.9
Twelve	165	10.8
Ethnicity		
Anglo	235	15.4
Black	1050	68.8
Mexican-American	231	15.1
Other	10	0.7
Sex		
Male	228	14.9
Female	1298	85.1
Cluster Membership		
EBCE	144	9.4
OC	1112	72.9
M/M	224	14.7
Unknown	46	3.0
Attendance Status		
Part-time	1119	73.3
Full-time	407	26.7

2. Review of instructional staff survey data suggested that the BMC faculty was trained and not inexperienced in the area of classroom instruction. By sex, results revealed that the staff was predominantly female. By ethnicity, data indicated that it was predominantly Anglo. More specifically, among those responding were 41 (58.6%) Anglos, 27 (38.6%) Blacks, 1 (1%) Mexican-American, and 1 (1%) teacher not identified by ethnicity. With regard to years of experience, ten respondents (14.3%) indicated less than one year's teaching experience, while 41 (58.6%) indicated from one to nine years experience and the remainder (27.1%) noted ten or more years experience in classroom instruction. While two (2.8%) of the respondents did not indicate highest degree earned, 37 (52.9%) indicated that they had earned a bachelor's degree, with 31 (44.3%) noting they held a master's degree.

3. Instructional offerings were identified in terms of four areas: academic, Experience-Based Career Education, Marketing/Management, and Office Careers. For full-time BMC students, the academic component was designed to concentrate on implementation of DISD baseline curriculum in grades nine through twelve. EBCE was defined as a one-year career exploratory program designed for full-time

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ninth-grade students. A somewhat limited career exploratory program was open to part-time ninth grade students in conjunction with an OC program. Additionally, part-time ninth graders were permitted to opt for study in other OC or in M/M areas. Beginning at the ninth grade level, M/M offered study devoted primarily to knowledge development related to concepts and practices of marketing and decision-making. In the OC cluster, the focus was on development of skill as well as knowledge related to clerical, secretarial, accounting, and data processing careers.

Scrutiny of results suggested that the EBCE program for full-time ninth graders was one of several options available to entry level students. Beginning at the ninth grade level, the OC cluster offered diverse options in the areas specified above. In the M/M cluster, on the other hand, course offerings commencing at the ninth grade level were found to be somewhat limited in scope and additionally not necessarily unique to the BMC. Similarly, advanced course offerings in the academic areas, perhaps in response to student requirements, were found to be somewhat limited.

4. Facilities. Eighteen classrooms were included in the survey of facilities. At least one classroom on each floor was surveyed. Additionally, status of the lunchroom, halls, stairs, restrooms, and administrative areas was noted in the surveying process. In general, observations suggested that the BMC facility was comprised of two time-worn structures in need of renovation. The exception noted was the first level of one structure which was renovated during the summer of 1976.

   Materials/Equipment. Faculty members were surveyed in the fall of 1976 and the spring of 1977 with regard to the availability of materials and equipment. Concern as school opened was directed toward shortages of textbooks, related manuals, and workbooks. Similar concerns were expressed in the spring, with shortages of textbooks being the most frequently noted deficiency.

5. Five BMC staff members responsible for record maintenance were interviewed with regard to career exploratory activities. Their records and remarks facilitated identification and documentation of three types of BMC career exploratory activities: group observations, non-paid internship activities, and paid internships activities. The activities were monitored from September, 1976, to February 1977. During that time a total of 269 group observations were scheduled involving 5935 students (cumulative figure). Additionally, a total of 19 students worked as non-paid interns at some time during the fall or winter quarter. Further, a total of 137 students, or about one-third of BMC students in the two higher grades, worked as paid interns during the months monitored. In general, then, comments of those interviewed documented the fact that opportunities were provided for BMC students to be exposed to the world of work through on-site experiences.

6. Use of Curriculum Documents. In instances where DISD curriculum guides were available, teacher survey responses indicated that baseline documents in the academic areas and learning plans in the career areas provided the basis for instruction. Where DISD curriculm documents were not formulated, responses suggested that responsibility for selecting basic resources was delegated to appropriate faculty members.

   Classroom Activities. Activities in the three career areas as well as the academic areas were observed during the fall and/or winter quarter. In general, it was noted that most students in the classes observed appeared to be on task. More specifically, observation suggested that EBCE students used class time primarily for individual work in the areas of English and career exploration. In OC classes observed, activities were devoted to hands-on tasks. Observation in M/M classes suggested that classes were taught in a more traditional manner than other cluster classes. Academic classes observed seemed to be much like those in other DISD schools accommodating students in grades nine through twelve.

7. Interviews with curriculum development personnel suggested that substantial progress was made toward formulating curriculum guides for EBCE and seven specialized labs in the OC cluster. Effort in the M/M cluster focused on definition of cluster framework. In general, faculty involvement in the development process seemed to be in line with input requirements of curriculum development personnel.

8. Observation of recruitment sessions indicated that BMC representatives made themselves available to inform students of the 1977-78 career education options. During the two-week recruitment effort, approximately 40 members (over 50%) of the BMC faculty participated in the recruitment process. With regard to the recruitment process itself, observation evidenced two general approaches. In the middle school, general information was first presented to a small assembly of students and then followed immediately by area-specific question/answer sessions offered on the basis of expressed student interest. At the high school level, a large number of students were first assembled for a general information session. Throughout the remainder of the day following the assembly, recruitment representatives visited English classrooms to respond to specific questions. The manner of presentation observed in the middle school appeared to be more efficient in terms of personnel use and information dissemination than the mode of presentation observed at the high school level.

9. Facility capacity of the BMC was prescribed by DISD decision-makers. The desegregation plan mandated by the U.S. District Court indicated a desirable ethnic composition of the BMC student body. Other than these guidelines, only one characteristic comprised the basis on which students were accepted for attendance. Each student was required to express an interest in pursuing high

school study at the BMC. Student completion of an application for admission was judged an indication of interest. Acceptance was on a first-come-first-serve basis.

10. Table 2 presents a summary of 1976 ITED fall test results for ninth and twelfth grade BMC students and the entire DISD. At the ninth grade level, BMC student scores for each subtest were similar to, though somewhat below, the average DISD ninth-grade score. At the twelfth grade level, scores for BMC students were consistently lower than the DISD mean. In general, test results suggested that BMC students were not as well prepared academically as the average DISD student.

11. During the 1976 Fall Quarter, a sample of BMC students responded to the *Everyday Skills Tests* (EST). While the ITED focused on the knowledge acquired in classroom pursuits, skills addressed by the EST were those basic to effective participation in today's complex society. The test instrument was comprised of a 45-item reading subscale and a 45-item mathematics subscale. Each subscale measured mastery of fifteen objectives. For each objective, three items were used to assess mastery. Two or three right responses were judged an indication of mastery. Typical reading and mathematics objectives are given below.

    Reading: The student will be able to identify an item labeled with consumer vocabulary such as detergent, ammonia, or vitamins in selecting its use for a specified purpose.

    Mathematics: Given a certain amount of money, the student will select from among several of the articles those that he or she can afford.

    While ITED results revealed that BMC students were perhaps not as well prepared academically as the average DISD student, EST results suggested that survival skills were an area of relative strength for BMC students. Fourteen of the fifteen reading objectives were mastered by at least 50% of the students tested. Eight of the fifteen mathematics objectives were mastered by at least 50% of those tested. Figure 1 outlines school-wide student mastery by subscale and objective.

12. During the week of April 25, 1976, two curriculum-related norm-referenced tests were administered at the BMC. The *Every Pupil Achievement Test--Typewriting* was given to a sample of BMC typing students. The *Minnesota High School Achievement Examination--Bookkeeping* was given to all BMC accounting students. Testing in other areas was deemed inappropriate since the areas have not been adequately addressed by published norm-referenced tests. Table 3 presents the results of tests administerd.

    For the typing examination, inspection of the table shows that a majority of the students tested (62.0%) earned scores between the

Table 2

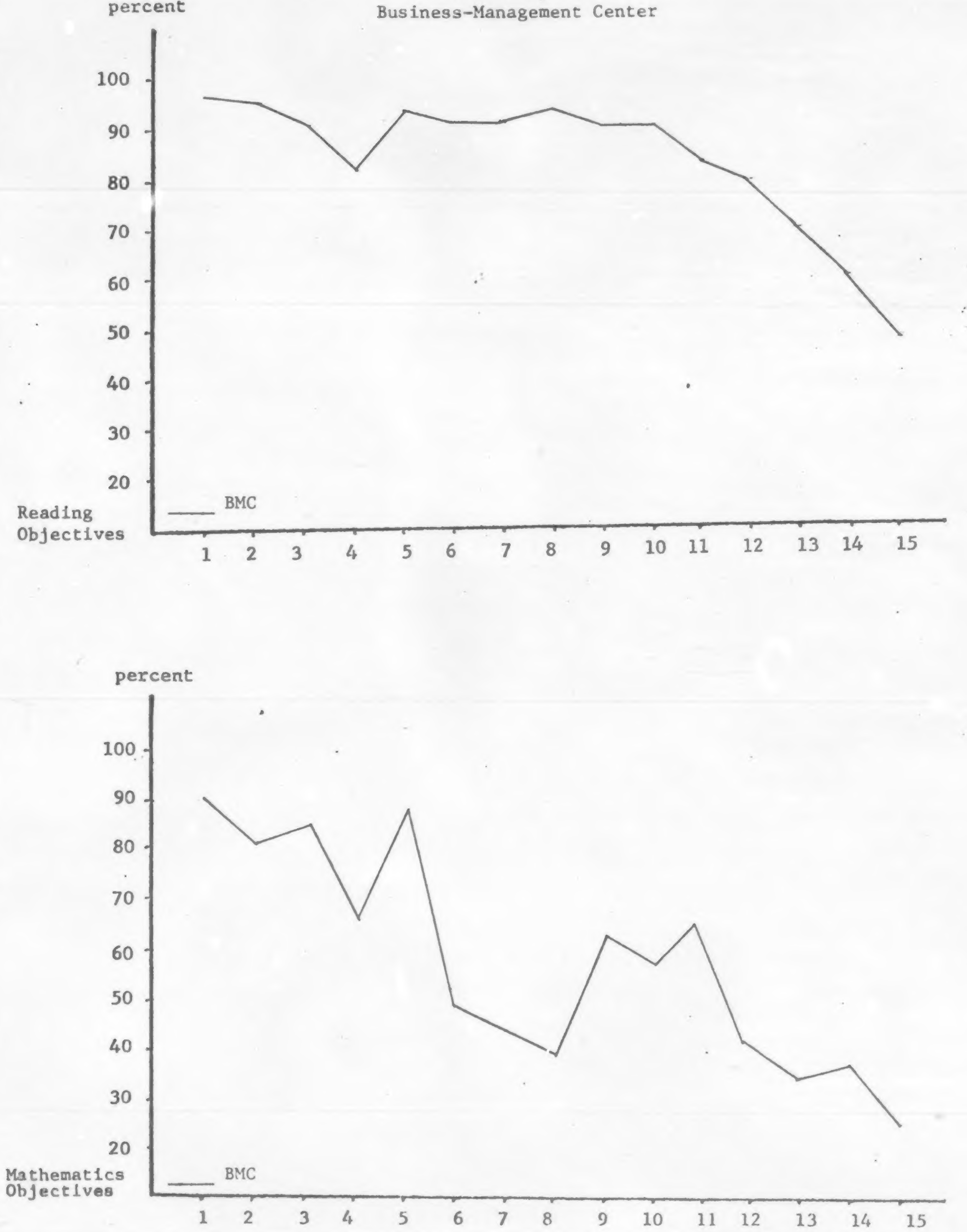
Summary of ITED Raw Score Means, Standard Deviations and Large-City Percentiles for the Business-Management Center and for the Total DISD Population

School	Reading Comprehension (90 Items)			Language Usage (90 Items)			Mathematics (36 Items)			Social Studies (48 Items)			Science (48 Items)			Use of Sources (46 Items)		
	$\overline{X}$	SD	P*	$\overline{X}$	SD	P	$\overline{X}$	SD	P	$\overline{X}$	SD	P	$\overline{X}$	SD	P	$\overline{X}$	SD	P
9th Grade																		
BMC	24.1	10.8	27	25.1	11.3	30	6.8	3.4	37	13.5	5.1	33	12.8	5.1	25	13.7	5.3	32
DISD Total	27.6	13.7	40	27.2	12.2	36	7.9	4.1	44	14.1	5.8	33	14.4	6.8	30	14.8	6.4	38
12th Grade																		
BMC	36.4	17.0	30	36.7	17.4	32	9.3	5.5	33	18.3	7.0	30	17.0	7.3	25	19.6	8.0	40
DISD Total	41.9	21.1	40	39.7	17.9	38	11.8	7.3	49	20.0	8.7	36	20.9	10.1	40	21.2	9.2	43

*Large-city percentile

Figure 1

Everyday Skills Tests
School Composite
Business-Management Center



first and the twenty-fifth percentile, while approximately 18.0% of those tested scored above the fiftieth percentile. On the accounting exam, Table 3 indicates that the majority of the students tested (92.5%) scored between the first and the twenty-fifth percentile, while a small percentage of those tested (1.4%) scored above the fiftieth percentile.

It was noted that equipment basic to the typewriting course were not available to students until about six weeks of the first quarter had passed. This in part might explain the fact that typing scores were not high. Other factors that might have influenced scores included climate established for testing, variation in testing times, grade level of students involved, and teaching methods. With regard to the accounting exam, the feeling was that the test scores offered reasonably accurate estimates of students knowledge and skill as measured by the test instrument. As was the case with the typing exam, however, consideration was given to the fact that test scores were perhaps affected by late arrival of materials basic to the course.

Table 3

Number and Percent of Students Scoring in Specified Percentile Ranges

Test	Percentile Ranges			
	1-25	26-50	51-75	76-99
Typewriting				
Number	44	14	11	2
Percent	62.0	19.7	15.5	2.8
Accounting				
Number	136	9	2	0
Percent	92.5	6.1	1.4	0.0

Additional Information:

SE77-115-9-7 1976-77 Evaluation of the Business Management Center, 1977, G. Kay Maxwell, Wayne R. Murray.

SE77-116-3-7

Abstract

Evaluation of the Transportation
Institute for 1976-77

Evaluator: Stephen W. Hebbler

Objectives of the Program: The Transportation Institute (TI) focused on the exploration of and preparation for careers in all phases of automotive technology and sales and service. The program was comprehensive allowing students to begin their studies at the institute and progress through the advanced stages of the industry.

The content of the program was divided into three areas: automotive technology; automotive body technology; and sales, marketing, forecasting, and public relations.

The goals of the Transportation Institute included the following:

1. Provide an exemplary instructional setting that is attuned to the real world of work in transportation technology.
2. Enable students to participate in a variety of work-related multiethnic training activities which facilitate understanding of the contribution of individuals and ethnic groups to transportation technology and the economy.
3. Provide graduates with the ability to make career decisions and to obtain and hold a job in a transportation occupation or continue their post-high-school training in a related field of study.

Purpose of the Evaluation: The evaluation of the Transportation Institute was designed to: (a) describe the context in which the program was operating during the 1976-77 school year, (b) describe some of the processes involved in implementing the program during the year, and (c) examine several outcomes of the magnet school program. A set of evaluation questions focusing on the aims above were written and data pertaining to those questions were collected during the year. The major evaluation questions investigated within the study are listed below.

1. Were facilities, supplies, and materials necessary for the instructional process obtained?
2. Was an adequate staff secured to implement the instructional program?
3. What were the characteristics of the student population at the Transportation Institute?

4. Was a recruitment program established and implemented in order to obtain students with sincere interests in the field of transportation?

5. What were the admission requirements for enrollment in the Transportation Institute?

6. Was guidance provided to students interested in obtaining employment or pursuing further education in their fields of interest?

7. Were students provided with opportunities to learn about work through first-hand experience such as:

    a. Extensive hands-on training at a specialty work station for senior students,

    b. Hands-on training at each specialty station for students during the sophomore and junior years,

    c. Appropriate field trip experiences and observations in actual work settings for all students, and

    d. On-the-job training and/or unpaid internships in actual work situations?

8. Was the prescribed instructional program (curriculum) implemented within the classroom?

9. Did students demonstrate improved knowledge in their cluster areas during the school year?

10. Did students demonstrate improved attitudes toward work during the school year?

11. Were staff development sessions held covering topics such as:

    a. course content,
    b. course development,
    c. field trips,
    d. visiting lecturers, and
    e. curriculum development?

12. Were student learning plans developed for all courses taught at the Transportation Institute?

13. Was an active advisory committee representing the Transportation Industry formed to provide assistance in curriculum development, enlist the aid of business in providing work experiences for students, disseminate the magnet school concept to the business community, and provide classroom resource personnel?

Sample: The sample utilized in the evaluation consisted of the teachers and management personnel as well as a randomly selected sample of students. Questions 1, 2, 4 through 8, and 11 through 13 involved TI teachers and administrators while students provided the data necessary to answer questions 3, 9, and 10.

Evaluation Design and Procedure: During September, 1976, each of the TI instructors completed a Materials/Equipment Inventory. Data from the inventory were tallied and summarized for presentation. Teachers' responses on the items pertaining to students' attitudes and difficulties, and comments concerning the operation of the magnet school were also summarized for use in the evaluation.

The TI instructors also completed a Professional Personnel Inventory during September. That instrument was designed to collect data concerning educational background, teaching experience, and cluster-related non-teaching experience for each instructor.

The TI facilities were rated on November 9 using the School Climate Survey Form. That instrument provides a quantitative description of specific as well as general aspects of the school building and grounds.

During October, each student filled out a Student Information Sheet. Information gathered using this instrument included student identification number, cluster area, sex, race, grade level, and full/part-time status.

A sample of TI students were administered the Everyday Skills Tests: Reading and Mathematics (EST) on November 2 and 3. The EST is a criterion-referenced test designed to assess students' mastery of operational-level performance objectives in reading and mathematics. Scores for individual students as well as overall class results were reported to the TI staff during the month of November.

The Career Maturity Inventory (CMI) was administered to the sample students on a pretest-posttest basis. The pretest was administered on November 2 and 3; the posttest on May 10. The CMI is a 50-item attitude instrument designed to elicit the feelings, subjective reactions, and dispositions the individual holds toward making a career choice and entering the world of work. The following five attitudinal clusters are surveyed by the CMI:

1. involvement in the career choice process,
2. orientation toward work,
3. independence in decision-making,
4. preference for career choice factors, and
5. conceptions of the career choice process.

The CMI scores were compiled for presentation in tabular form by cluster and students' overall pre- to posttest attitude change was investigated using a matched-pairs *t* test.

Several of the evaluation questions were investigated through informal interviews with TI instructors and administrators and through spontaneous observations in the school.

Evaluation Results: The results listed below correspond, by number, to the evaluation questions presented earlier.

1. Data collected using the School Climate Survey Form are presented in Table 1. Overall, the ratings were poor with only the administrative area being judged pleasant and adequate.

Table 1

Evaluation of the Transportation Institute Facilities[a]

	General Rating		General Rating
Academic Area	1	Restrooms	2
Shop Areas	2[b]	Clinic	1
Lunchroom	2	Administrative Area	3
Halls/Stairs	1		

[a] A rating of 4 indicates very good condition, 1 indicates very poor condition or inadequacy.

[b] See text for discussion of shop area evaluation.

The moderately unpleasant ratings (ratings of 2) given to the lunchroom and restrooms reflected the need for improvement in those areas. The major complaint concerning the restrooms revolved around poor ventilation and the need for adequate supplies. The lunchroom, although basically clean and unobjectional visually, received its low rating because of the heavy exhaust fumes noticed by the evaluators in this area of the school.

Although the shop area received an overall rating of 2 (moderately unpleasant or inadequate), this rating needs clarification. In terms of adequacy for instruction in the practical aspects of automotive repair and body, the shop would have received a higher rating--the basic objections were a relatively high noise level and the presence of exhaust fumes in the repair area. As a classroom, however, the shop areas were totally inadequate. The groups of desks clustered around a portable chalkboard were open to outside distractions, poorly lit, and not conducive to student concentration. Furthermore, the lack of walls and presence of noises from nearby shop areas made it necessary for the shop instructors to shout in order to be heard. Additionally, lighting in the main shop area did not seem to be adequate for carrying on regular classroom activities.

Ratings of 1 indicate that the area being evaluated is very unpleasant and/or totally inadequate for its intended use. One of the areas which received such a rating was the clinic. Although this rating does not reflect on the quality of care which has been provided to the students this year, the physical appearance of the clinic was dull and depressing. The room appeared to be too small and was judged to lack enough storage area and an adequate degree of privacy and comfort for patients. The academic area also received a general rating of 1. Some of the upstairs rooms were too hot and most were poorly insulated from noise generated in the shop area and in other classrooms. Many of the rooms were too small for the size of the classes meeting in them. The classrooms were very poor in terms of fire safety. The academic area of the building appeared to be very susceptible to damage by fire due to the bolted upstairs windows and the lack of fire escape equipment.

The Transportation Institute is presently upgrading its facilities substantially. The academic area, the lunchroom and the library are being relocated in a modern, spacious building located half a block from the facility utilized this year. The shops are being fitted with an exhaust and fume evacuation system and the academic area used last year is being upgraded and readied for use as classrooms for the shop instructors. The changes and improvements above should eliminate the facility-related problems.

While most of the TI instructors indicated that the availability of curriculum guides and audio-visual materials was adequate at the beginning of school, there was about a 50/50 split with regard to textbooks, manuals, study aids, and workbooks (see Table 2).

Table 2

Availability of Materials: Number of Teachers Responding by Category of Materials (September, 1976)

Category	Response		
	Available	Unavailable	No Response
Textbooks/Manuals	9	12	0
Study Aids/Workbooks	10	11	0
Audio-Visual Materials	14	6	1
Curriculum Guide	17	3	1

Some of the teachers to whom the materials above were unavailable indicated that they had only some material given to them by automotive dealerships to work with. It was stated that no organized materials were available last year for the Orientation to Transportation courses. One instructor complained that the library was inadequate and another needed maps and a globe. Of those instructors who had inadequate supplies or materials, eleven said that the missing materials had been ordered and five indicated that they had not. Most of the instructors did not know when ordered materials would arrive.

When the TI instructors were asked in May about the availability of instructional materials, the status was about the same. However, most of the instructors expected to have all needed instructional materials by the beginning of school next year.

Of the 21 instructors who completed the Materials/Equipment Inventory in September, 13 had the equipment necessary to proceed with instruction, 7 did not, and 1 made no response. For those instructors who did not have the necessary equipment, the items they listed as missing were: hand tools, a spray booth and electrical work (outlets for tools and racks, etc.). Before the end of the 1976-77 school year, all the equipment necessary for instruction had been received and installed at the school.

2. A summary of information concerning the educational level, teaching experience and nonteaching experience (in the transportation field) of the instructors is presented in Table 3. The instructional staff seemed to be well qualified judging from the information presented. Eighty percent of the staff held a bachelor's degree and over one-third of the instructors had completed post-graduate work or had earned a master's degree. The instructors had an average of 7.6 years of teaching experience.

3. A description of the student body broken down by cluster is presented in Tables 4 and 5. There were many more males than females attending TI. The ethnic makeup, overall, for TI consisted of 31% Anglo, 48% Black, and 20% Mexican-American. Fifty-one percent (51%) of the students were ninth graders, 24% were in tenth grade, 17% in eleventh, and 7% in twelfth. Eighty-eight percent of the TI students rode busses to and from school, 7.5% utilized other means, and 4% did not report their mode of transportation. The student population at TI was comprised of 125 (19%) full-time students and 537 (81%) part-time students.

Teachers reported that many difficulties were experienced by TI students (see Table 6). There was almost unanimous agreement that some problems existed within the student population with

Table 3

Summary of Information: Instructional Personnel at the Transportation Institute

	N	Percentage
Educational Background		
Master's Degree	5	25
Post-Graduate Work	2	10
Bachelor's Degree	9	45
No College Degree	4	20
Teaching Experience[a]		
10 Years or More	6	30
5 to 9 Years	4	20
1 to 4 Years	8	40
None	2	10
Non-Teaching Experience in Transportation Field		
10 Years or More	1	5
5 to 9 Years	2	10
1 to 4 Years	3	15
None	14	70

[a] Average Teaching Experience = 7.6 years

Table 4

Student Population Profile: Number of Students in Each Category by Cluster (September, 1976)

Category	Basic Mechanics and Orientation	Automotive Technology	Automotive Body	Automotive Marketing	Advanced Auto Body	I.C.T.[b]	Total[a]
SEX							
Female	4	2	2	2	0	0	13
Male	345	150	65	51	10	21	649
RACE							
Anglo	118	48	15	10	2	8	205
Black	146	84	33	34	7	10	318
Mexican-American	80	19	19	9	1	3	133
American Indian	2	0	0	0	0	0	2
Oriental	1	0	0	0	0	0	1
GRADE							
9	339	0	2	1	0	0	344
10	4	64	27	50	10	0	158
11	5	57	32	0	0	17	113
12	0	31	6	2	0	4	44
METHOD OF TRANSPORTATION							
Bus	329	129	55	48	9	6	584
Other	13	11	9	3	1	12	50
Unknown	7	12	3	2	0	3	28
PART-/FULL-TIME STATUS							
Full-Time	66	26	0	2	10	20	125
Part-Time	283	126	67	51	0	1	537
TOTAL	349	152	67	53	10	21	662

(The column headers Basic Mechanics and Orientation through I.C.T. stand under the spanning header CLUSTER.)

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[a] Entries in the total categories include some students with missing data and may, therefore, be slightly higher than the sum of their components.

[b] I.C.T. stands for Industrial Cooperative Training

Table 5

Student Population Profile: Percentage of Students in Each Category by Cluster[a] (September 1976)

Category	Basic Mechanics and Orientation	Automotive Technology	Automotive Body	Automotive Marketing	Advanced Auto Body	I.C.T.	Total[b]
SEX							
Female	1	1	1	1	0	0	2
Male	52	23	10	8	2	3	98
RACE							
Anglo	18	7	2	2	1	1	31
Black	22	13	5	5	1	2	48
Mexican-American	12	3	3	1	4	1	20
American Indian	1	0	0	0	0	0	1
Oriental	1	0	0	0	0	0	1
GRADE							
9	51	0	1	1	0	0	52
10	1	10	4	8	2	0	24
11	1	9	5	0	0	3	17
12	0	5	1	1	0	1	7
METHOD OF TRANSPORTATION							
Bus	50	19	8	7	1	1	88
Other	2	2	1	1	1	2	8
Unknown	1	2	1	1	0	1	4
PART-/FULL-TIME STATUS							
Full-Time	10	4	0	1	2	3	19
Part-Time	4	19	10	8	0	1	81
TOTAL	53	23	10	8	2	3	--

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[a] Each percentage is based on total enrollment (i.e., 662 students).

[b] Totals may not add up to 100 due to rounding error and some missing data.

regard to reading ability, ability in mathematics, and maturity. Additionally, some instructors noticed that many students lacked the mechanical dexterity necessary for practical work in the shop courses.

Table 6

Difficulties Experienced by Students at the Transportation Institute: Number of Teachers Responding[a]

Problem Area	Yes	No	No Response
Reading Ability	21	0	0
Mathematics	14	0	7
Busing Problems	11	5	5
Mechanical Dexterity	6	6	9
Maturity	19	0	2

[a] A response of "yes" indicated that the teacher had observed students experiencing problems in that particular area.

Test results on the EST and the ITED presented somewhat different information concerning students' achievement levels in reading and mathematics. The EST is a criterion-referenced instrument designed to assess students' mastery of performance objectives in the areas of reading and mathematics. The objectives measured are of an operational level in both reading and mathematics and are based upon the kinds of reading and calculation that a student might need to engage in in everyday life. In this respect, the EST differs from the ITED which is a norm-referenced test which emphasizes a high-school-related reading and mathematics content.

Results on the EST are presented by grade level in Table 7. The differences between students in different grades was rather small although appreciable differences existed on some objectives for students in grade 12 when compared to students in the other three grades. Mastery of reading objectives surpassed mastery in mathematics in all grades.

The overall results for all students (see Table 7), indicated a good level of mastery in the area of reading but only poor to moderate mastery in mathematics.

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Results on the Everyday S
Percentage of Students

Objective Number[a]	READING				
	Grade 9 (n=60)	Grade 10 (n=6[illegible])	Grade 11 (n=46)	Grade 12 (n=30)	A
1	95	95	98	97	
2	93	94	91	93	
3	85	90	89	93	
4	82	86	91	90	
5	84	87	89	90	
6	80	87	89	83	
7	80	86	87	87	
8	93	90	89	97	
9	79	83	81	90	
10	90	90	89	97	
11	64	84	74	93	
12	79	86	81	93	
13	67	65	62	80	
14	52	56	70	67	
15	33	44	57	67	

[a] The EST objectives are listed in the Context Re

Table 7

kills Test: Reading and Mathematics.
by Grade Level Meeting Objectives

	MATHEMATICS				
ll Grades (n=199)	Grade 9 (n=60)	Grade 10 (n=63)	Grade 11 (n=46)	Grade 12 (n=30)	All Grades (n=199)
96	89	90	87	93	90
93	85	92	87	83	88
89	74	87	83	83	82
87	66	65	72	70	68
87	59	67	72	73	67
85	39	51	70	83	57
85	30	44	45	50	41
92	26	35	38	47	35
82	31	43	57	60	45
91	54	57	68	67	60
77	48	63	51	67	56
84	31	46	49	57	44
67	33	41	40	57	41
60	25	43	30	57	36
47	30	19	21	23	23

eport, Appendix E (see Additional Information).

Table

Results on the Everyday Skills Tes
Percentage of Students by Cl

Objective	READING Basic Tech. & Orient. (n=64)	Auto. Tech. (n=74)	Auto Body (n=25)	Auto Mktg. (n=11)	Adv. Body (n=8)	I. (n=
1	95	97	96	91	88	1
2	94	95	92	91	88	
3	86	92	80	100	88	
4	82	89	84	100	88	
5	85	92	80	82	88	
6	82	89	88	91	63	
7	82	88	76	91	75	
8	94	96	80	91	75	
9	80	92	72	73	75	
10	91	97	88	91	50	
11	63	88	80	100	63	
12	80	91	76	91	75	
13	96	72	68	64	38	
14	54	64	68	73	38	
15	34	63	52	45	25	

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8

sts: Reading and Mathematics.
uster Meeting Objectives

	MATHEMATICS					
C.T. =15)	Basic Tech. & Orient. (n=64)	Auto. Tech. (n=74)	Auto Body (n=25)	Auto Mktg. (N=11)	Adv. Body (n=8)	I.C.T. (n=15)
100	89	92	84	91	88	93
87	85	89	92	91	88	80
93	75	87	88	91	75	67
87	65	69	72	82	50	67
87	60	76	60	55	63	67
80	38	68	64	45	63	80
93	31	49	52	36	38	33
93	26	40	40	45	13	47
73	31	60	44	36	38	47
87	55	63	76	45	38	67
67	48	63	60	91	38	40
73	32	52	59	45	00	60
53	34	44	44	45	50	40
53	26	41	44	55	38	33
33	28	21	24	45	13	07

Table 9

Results on the Everyday Skills Tes
Percentages of Full-tim
Students Meeting

Objective Number	Reading Full-time (n=84)	Part-tim (n=112)
1	96	96
2	93	93
3	88	90
4	80	91
5	84	89
6	80	88
7	84	85
8	94	91
9	83	82
10	89	93
11	68	83
12	80	86
13	61	71
14	53	64
15	36	55

ts: Reading and Mathematics
me and Part-time
Objectives

Mathematics	
Full-time (n=84)	Part-time (n=112)
91	88
86	88
78	84
66	69
73	63
54	59
41	40
34	36
39	50
58	62
53	59
44	44
40	41
36	36
23	24

With respect to cluster area (Table 8), the differences between groups was sometimes large (e.g., on reading objective 13) but there existed no overall patterns indicating significant differences between cluster areas.

Table 9 presents the EST scores for full-time and part-time TI students. On six of the reading objectives a greater percentage of full-time students exhibited mastery.

The ITED scores for full-time ninth-grade students (data from the DISD system-wide testing program) presented a somewhat dimmer picture of the student population in terms of reading ability while reinforcing the findings on the EST in mathematics. Tabel 10 presents these results. The median percentiles for full-time ninth graders were well below the average for large cities as well as the nation as a whole. This was true for all subscales and for the total test composite.

Table 10

Results on the Iowa Tests of Educational Development
Median Percentiles for Ninth-Grade Students on the
Reading and Mathematics Subtests
and Total Test Composite

	N	National Norms	Large-City Norms
Reading			
Comprehension	66	15	26
Vocabulary	66	28	35
Total Reading	66	13	22
Mathematics	65	30	37
Composite	64	19	25

Implications of these findings, and those on the EST, were that many of the students enrolled in the Transportation Institute could read and utilize written material of a basic operational nature but probably could not understand much of the written material presented in regular high school curricula and technical automotive manuals.

With respect to student achievement in mathematics, both tests underscore a basic deficiency in students' ability to understand and apply mathematical concepts.

4. The recruitment of high school students for the Transportation Institute was handled by the Skyline CDC recruiting team which visited each of the DISD middle and senior high schools around the middle of the school year. Recruitment in the middle schools consisted of a slide-type presentation, usually held in school auditoriums, followed by representatives (both teachers and students) from the magnet schools and the career development centers speaking to small groups of students in classrooms throughout the day.

   At the high school level information concerning the magnet high schools and CDCs was distributed via an information booth set up near the cafeteria. Magnet school and CDC staff members manned the booth throughout the day to field questions from interested students.

5. Interviews with the director of the Transportation Institute and with the counselor revealed that the only criterion for admission to the school was compliance with the court-established ethnic guidelines. Administrators at TI reported that many capable, interested students of all ethnic backgrounds were not able to enroll in TI after receiving information about the school whereas a large percentage of students already enrolled proved to be incapable, disinterested in the field and/or discipline problems.

6. The small size of the first TI graduating class limited the number of students attempting to enter the job market. Two graduates are now working full-time in a Dallas new car dealership. The owner of that dealership is a task force member.

   Fourteen TI students have been placed in full-time summer jobs in the automotive field through the DISD Summer Employment Program. The program was set up through the cooperative efforts of the TI task force, the New Car Dealers' Association, and DISD.

7. Students at the Transportation Institute had many opportunities to gain first-hand experience in the transportation field. These opportunities were in the forms of field trips, laboratory experiences, and, for some students, on-the-job training through the Industrial Cooperative Training (ICT) program.

   Many field trips were conducted for TI students. Usually, the trips were arranged so as to correspond to the curriculum concepts being studied. The following is a list of firms and institutions which were visited by TI students during the year (many of the firms hosted trips several times during the year).

      American Airlines
      Auto Frame Equipment
      Bell Helicopter
      Channel 4 Television (Advertising Department)
      Coca Cola Bottling Company
      Continental Trailways
      Cummins Diesel

Dal Tex Company
Dallas County Court House (Career Study - Law)
Don Snell Buick/Opel
Doran Chevrolet
Dupont Paint
Eagle Lincoln/Mercury
Friendly Chevrolet
General Motors Assembly Plant
International Harvester
Kansas Jack Frame Machines
Lee Electric
Lincoln Technical Institute
OMC Training Center
Planetarium (Fair Park)
Rodger Meier Cadillac
Science Museum (Fair Park)
Southwest Airlines Maintenance
Texas State Employment Agency (Career Study)
Wax Museum

Seventeen eleventh-grade and four twelfth-grade students received on-the-job training during the school year. These students were enrolled in the ICT program which allowed them to work full- or part-time in the transportation field while simultaneously receiving credit and course grades for the experience gained. During observations at the TI, the evaluator observed students taking part in a wide variety of activities providing hands-on experience in automotive technology and body repair. The activities observed included engine tune-ups, brake work, exhaust system repair, engine overhaul, body repair, and body preparation and finishing. Most of the students observed seemed to be very interested in the work they were performing.

8. Observations of academic classrooms and shops at the Transportation Institute resulted in a variety of different impressions concerning the implementation of the TI instructional program. The instructional situations which were observed ranged in quality from excellent--students eagerly engaged in learning activities--to poor. The instructional situations judged by the evaluator to be poor were, generally, precipitated by disruptive student behavior (either within or external to the classroom), movement of students into and out of classrooms during the instructional period, or announcements made over the intercom system. The evaluator asked several teachers questions concerning the implementation of the TI curriculum. Most of the teachers responded that implementation was being accomplished, but that the discipline, facilities and noise problems made the task exceedingly difficult.

The discipline problems discussed above decreased substantially during the second half of the school year. Observations made during that time revealed far more students engaged in learning activities. The halls and shop areas were much quieter during the second half of the year.

A variety of curriculum materials were used at TI. For the most part the Automotive Technology and Body clusters utilized Skyline CDC curricula, but much supplemental curriculum material (e.g., Motor Transportation Technology from Texas A & M and Auto Mechanics by the Oklahoma State Department of Vocational and Technical Education) was incorporated. The Orientation to Transportation and Marketing instructors operated without formal curriculum materials this year (see Question 13) using whatever they could assemble. The History of Transportation course was taught using the partially completed curriculum which had been developed for TI during the preceding summer.

9. Twenty instructors were interviewed concerning the progress their students made in TI courses during the school year. Two instructors reported that 90% or more of their students had progressed satisfactorily, nine reported between 51% and 89%, seven felt that between 11% and 50% made satisfactory progress, and 10% or less was reported by two instructors. The major reasons noted by the instructors for students' failure to exhibit satisfactory progress were low reading level and lack of interest in the curriculum.

10. Students' scores on the Career Maturity Inventory are presented in Table 11. The overall mean for TI students on the CMI posttest was well below the average for each grade level norm group on the CMI. The average CMI posttest score was 30.6 for TI students whereas it is 34.3, 35.3, 36.0, and 37.2 for 9th, 10th, 11th, and 12th graders respectively in the CMI norm group. The overall posttest score falls at the 23rd percentile for ninth graders in the norm group and at the 11th percentile for 12th graders. According to the CMI Administration and Use Manual, a percentile rank of 25 indicates a satisfactory level of progress in career maturity.

The pre- to posttest change in students' CMI attitude scores was 0.9 raw-score points. This change approximates the gain per year experienced by the CMI norm group and was found to be statistically significant ($\underline{t}$(matched-pairs) = 4.42, $\underline{df}$ = 111, $p < .01$). The change in attitudes was attributed to program effects and/or maturation.

11. Staff development activities were conducted at the Transportation Institute during early building release sessions and on full staff development days. The full-day sessions will be described first followed by early building release activities.

On November 15, TI instructors spent the morning working on first-quarter student records and, after lunch, attended a session introducing them to the Skyline CDC curriculum and record-keeping process. The January 3 staff development day was spent in local building activities. A representative from the DISD Management

Table 11

Means, N, and Standard Deviations on the CMI
for TI Students in Different Clusters

Cluster	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Mean Difference
Basic Mechanics & Technology	35	28.7	5.4	30.4	5.6	+1.7
Auto Technology	40	31.0	6.2	31.2	6.1	+0.2
Auto Body	15	27.9	5.3	29.7	4.1	+1.8
Marketing	9	31.6	5.2	30.8	6.5	-0.8
Advanced Auto Body	7	27.7	7.2	29.1	4.7	+1.4
ICT	6	31.2	5.7	30.8	6.6	-0.4
Full-time Students	54	29.7	5.7	30.9	5.6	+1.2
Part-time Students	58	29.7	6.2	30.3	5.9	+0.6
All Students	112	29.7	5.8	30.6	5.7	+0.9[a]

[a] t(matched-pairs) = 4.42, df = 111, $p < .01$

Academy conducted a session focusing on the management of classroom discipline problems during the February 25 staff development session. The March 18, April 8, and June 3 sessions were utilized for local building activities such as discussing problems and working on progress reports.

Staff development sessions held during early release days covered a wide variety of topics. These topics included ways that the school can produce positive and negative feelings in the community, the roles of TI staff members, the DISD Plan A Program, implementation of the court order concerning magnet schools, equal opportunity and Title IX, and affirmative action.

Of the 20 TI instructors interviewed in May, five reported that the staff development programs were useful, 14 stated that the programs were of little or no value, and two reported that some of the sessions were helpful and some were not.

12. Outlines were completed for all TI courses by the middle of the school year. Student Learning Plans (SLP), Evaluation Instruments, and Teacher Implementation Guides are presently being (or have been) developed for each of those courses. The History of Transportation SLP is completely finished and final copies of the evaluation instruments for 12 of the 13 modules are completed. Seven out of 10 modules in the Marketing SLP are in final copy form. The Transportation Careers curriculum is progressing well with 15 objectives in proofed/edited form and another six in draft form. There will be 31 objectives in the course. In that curriculum, the SLP, Evaluation Instruments, and the Teacher Implementation Guide are being produced simultaneously.

13. A task force (advisory committee) made up of 17 representatives from the automotive industry in the Dallas area was formed and supported the Transportation Institute in a variety of ways. The task force held its first meeting on July 27, 1976 with 13 members present. The major topics of discussion were the TI enrollment, curriculum, equipment, and facilities remodeling. Since that time the task force chairman has maintained close contact with the TI and with the other members of the task forces. Examples of the activities and accomplishments of the advisory committee are presented below.

    - An article which appeared in the September 9, 1976 edition of Auto Graph, a publication of the New Car Dealers Association of Dallas County, helped present the needs of the TI to automobile dealers in the Dallas area.

    - The task force chairman contacted a new car dealer in Fort Worth who donated materials and training aids which were used in the Marketing cluster.

- Four task force members attended the TI open house which was held on November 18.
- A task force member associated with a large automotive supply company spent considerable time assisting curriculum writers in the Marketing cluster.
- Five task force members assisted in the TI Awards Program on April 6.
- Eleven new car dealers are participating in the DISD Summer Employment Program. Fourteen TI students are presently working in the program which was set up through the cooperative efforts of the TI task force, the New Car Dealers' Association, and DISD.

Additional Information:

SE77-116-9-7 Evaluation of the Transportation Institute, 1977, Stephen W. Hebbler.

1808

Abstract

Evaluation of the High School for Health Professions, 1976-77

Evaluator: Dennis L. Moon
Wayne R. Murray

Objectives of the Program: The High School for Health Professions was designed to utilize specialized school facilities and community medical institutions as settings for students who desire career preparation in the health occupations field. Practitioners from health care fields provide instruction by offering students theory in health care sciences and "hands-on" training through simulation, cooperative work-study programs, internships and volunteer service.

Preparatory courses and skill development experiences are offered to students in grades 9-12 at introductory and advanced levels of performance. Volunteer work experience, internship, and on-the-job training provide each student with entry level skill development in a number of health professions. Students desiring to continue studies in health care fields in professional or post-baccalaureate programs will have a wide range of skills in the cognitive, attitudinal and psychomotor domain as a foundation for advanced study.

There are six health-related clusters at the HSHP:

1. Ninth-grade career exploration (1 year): emphasizes career orientation, health education and biology.

2. Medical Careers (2 years): Provides concepts and "hands-on" activities in the areas of:

    a. Human anatomy and physiology.
    b. Medical laboratory.
    c. Nursing/health assistant skills

3. Health Assistant (nurse aide/orderly level) (1 year): In-depth experience in nursing skills and office practice.

4. Dental Assisting (2 years): Theory and practice in dental assisting.

5. Dental Laboratory Technology (2 years): "Hands-on" skills in the production of full dentures, crowns, bridges and other dental prostheses.

6. Health Occupations Cooperative Training (HOCT) (1 year): A long standing state funded (Texas Education Agency) program which allows twelfth-grade students to participate in paid job experiences in the community.

Some of the ideals for which the school strives follow:

1. To provide a learning environment which assists the student in the integration of school with the world of work.

2. To provide the student with the opportunity to master a wide range of skills in the cognitive, attitudinal, and psychomotor domains in the health studies offered, as well as to closely examine the various health careers and their educational and competency requirements.

3. To provide the student with an understanding of fundamental principles and concepts and to allow him to develop a working vocabulary or terminology employed in a wide range of health fields.

4. To provide the student with the necessary foundation in human anatomy and physiology so that he will be prepared to begin study in a particular health occupation, or to continue studies in the biological sciences in preparation for a professional or preprofessional baccalaureate program.

5. To provide students with information so they can become faimilar with the kinds of health care that will enhance the quality of their personal and family lives.

6. To enable the student to experience success and gain a positive self-image through a flexible structure that contributes to each student's progress and skill development.

7. To maintain a close working relationship with practitioners in the field.

8. To provide an instructional setting in which realistic preparation for a health career is provided through individualized instruction and counseling.

9. To provide cultural pluralism through educational experiences.

Purpose of the Evaluation: The evaluation of the High School for Health Professions was instituted to provide useful information to policy-makers and project management concerning the establishment and operation of a school which would provide students opportunities for study and career preparation in the health field. Towards this end, evaluation activities, loosely structured by the CIPP evaluation model, focused on providing detailed information concerning students, staff, academic achievement, program implementation, career exploratory activities, program rationale and goals, and participation in the recruiting procedures for the District's Career Opportunity Programs.

Sample: The evaluation of the High School for Health Professions was a conglomerate of small studies each of which utilized a different data source. Questions of interest concerning program implementation were answered by monitoring each classroom and by surveying the entire instructional staff. Data relative to academic achievement consisted of the scores of all enrolled students with current ITED data. In every instance, the evaluator attempted to gather data from all members of the population under scrutiny. All data were presented as descriptive and no inferential techniques which depend on sampling assumptions were utilized.

Evaluation Design: In anticipation of information needs pertinent to program structure and implementation, the evaluation focused on defining the context of the program and sought to identify impediments to full implementation according to design. In accordance with these aims, answers to the following questions were pursued in the specified manner.

1. What was the operational configuration of the HSHP? The evaluator, through discussions with the director, assistant directors, department heads and curriculum personnel and by analysis of various position papers, policy statements, and job descrpitions, sought to document the nature and intents of the HSHP.

2. What were the characteristics of the student body? The evaluator gathered and presented information concerning the students enrolled. Information presented included the distribution of enrollment across sex, ethnicity, grade level, and full- or part-time status.

3. What were the characteristics of the instructional staff? Through use of a self-administered questionnaire a demographic profile of the instructional staff was compiled. This profile presented distributions by sex, ethnicity, teaching experience, and related experience.

4. Was the program implemented as designed? The evaluator surveyed the instructional staff in order to gain insight to deficiencies in the plan or operation of the HSHP. Additionally, the evaluator monitored each class on two occasions for the purposes of identifying discrepancies between design and implementation and of noting any impediments to learning.

5. What were the characteristics of the HSHP career exploratory activities? By interviewing instructors and coordinators and by polling the Health Careers Exploration instructors, the evaluator attempted to document activities such as group observations, individual observations, and paid and non-paid internships.

6. To what extent was the school faculty and staff involved in recruitment of students? The evaluator interviewed faculty

members who participated in the District's CDC and magnet school recruitment activities and monitored the activities at several randomly chosen sites.

7. What was the HSHP student performance at program entry level as measured by the Fall 1976 administration of the Iowa Tests of Educational Development (ITED)? Utilizing the test files maintained by the system-wide testing staff, the evaluator generated several statistics and other descriptors of the test data of the HSHP students. Means, standard deviations, medians and percentile ranks for each subtest were reported.

Evaluation Results

1. During the 1976-77 school year, the High School for Health Professions was housed in two buildings--one was the completely renovated facility which formerly served as Stephen F. Austin Elementary; the other, designated the Academic Center, was the newly remodeled building which was formerly a furniture showroom. The laboratories and classrooms which were associated with those programs offered to tenth, eleventh, and twelfth graders were located at the Austin campus. At the Academic Center were those classrooms and laboratories which housed the ninth-grade offerings as well as the regular academic classes.

   The administration of the school reflected the fact that the program operated in two buildings which were not on adjoining properties. At each building were an assistant director/ principal and a cluster coordinator. These four persons reported directly to the school's director, who in turn reported to the assistant to the general superintendent.

   Figure 1 presents the configuration of the health related course offerings at the HSHP. Through the year, the director, instructors and curriculum staff worked to develop goals, instructional objectives, and student learning activities for each of the health-related clusters. By year's end, course outlines had been finalized for all programs; and learning activities had been prepared for a majority of the clusters. These curricula, in the estimate of the evaluator, provide a comprehensive set of program specifications which evidence clear intent in terms of student achievement.

   In addition to the course-level goals contained in the curricula, overall goals for the institution were developed. This development process included a review of the pre-planning and planning stages of the project, a perusal of District documents which describe desired instructional methods and educational philosophies, and the solicitation of community input. Program managers, instructional staff, and curriculum staff worked to produce a set of goals which represented the consensus of all involved. These goals, while neither a complete or final list

THE HIGH SCHOOL FOR HEALTH PROFESSIONS

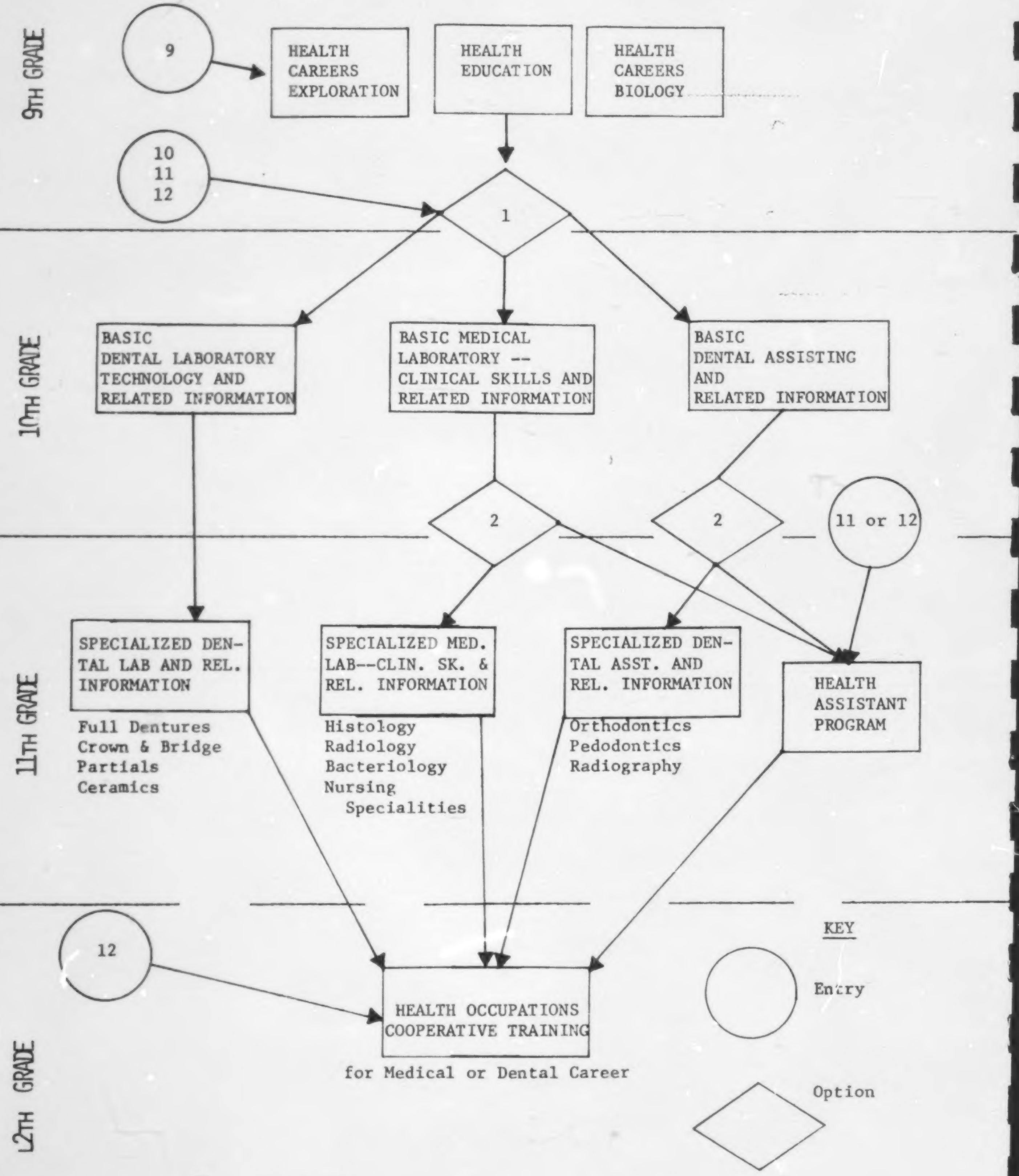

9TH GRADE
9
HEALTH CAREERS EXPLORATION
HEALTH EDUCATION
HEALTH CAREERS BIOLOGY
10
11
12
1
10TH GRADE
BASIC DENTAL LABORATORY TECHNOLOGY AND RELATED INFORMATION
BASIC MEDICAL LABORATORY -- CLINICAL SKILLS AND RELATED INFORMATION
BASIC DENTAL ASSISTING AND RELATED INFORMATION
2
2
11 or 12
11TH GRADE
SPECIALIZED DENTAL LAB AND REL. INFORMATION
Full Dentures
Crown & Bridge
Partials
Ceramics
SPECIALIZED MED. LAB--CLIN. SK. & REL. INFORMATION
Histology
Radiology
Bacteriology
Nursing Specialities
SPECIALIZED DENTAL ASST. AND REL. INFORMATION
Orthodontics
Pedodontics
Radiography
HEALTH ASSISTANT PROGRAM
12TH GRADE
12
HEALTH OCCUPATIONS COOPERATIVE TRAINING
for Medical or Dental Career
KEY
Entry
Option

Figure 1. Configuration of health-related classes.

of what the program is to accomplish, reveal what activities and outcomes are judged to be worth special attention.

Course offerings in the health-related areas were made according to a student's grade level in the ninth-grade. That is, all ninth-grade students were enrolled in the health education, health careers exploration, and health careers biology classes. Only ninth-graders were enrolled in these classes. By the same token, only eleventh graders were enrolled in the Health Assistant course; and only twelfth graders were enrolled in the HOCT program. On the other hand the Medical Careers, Dental Assisting, and Dental Laboratory Technology programs were open to those in grades ten and above. At each level and in each program, specially trained instructors held class in their field of knowledge only.

The table below presents the duration both in terms of daily and weekly scheduling of the courses offered.

Course	Hours/Day	Days/Week	Weeks/Year
Health Education	2	5	12
Health Careers Exploration	2	5	24
Health Careers Biology	1	5	36
Health Assistant	3	5	36
Dental Technology	3	5	36
Dental Assisting	3	5	36
Medical Careers	3	5	36
Health Occupations Cooperative Training	1	5	36

2. The table below presents a demographic profile of the enrollment at the HSHP. Items of note are the ratio of female to male students and the enrollment by ethnicity. Other tabulations prepared in the study showed that--

   a. The ninth-grade program accounted for 40% of the total enrollment, while the Medical Careers cluster accounted for 36%.

   b. There were few males enrolled in Dental Assisting, Health Assistant and Health Occupations cooperative training (HOCT).

   c. There was a large proportion of Black students in the Health Assistant program and a large proportion of Anglo students in Dental Laboratory Technology.

Profile of HSHP Students--All Programs

Category Description	Number in Category	% of Total Enrollment
SEX		
Male	217	25
Female	636	75
ETHNICITY		
Anglo	245	29
Black	506	59
Mexican-American	92	11
Other	10	1
GRADE LEVEL		
Ninth	342	40
Tenth	229	27
Eleventh	202	24
Twelfth	80	9
FULL-/PART-TIME STATUS		
Full-time	297	35
Part-time	556	65
TOTAL ENROLLMENT	853	100

3. The following table presents a demographic profile of the instructional staff.

Profile of HSHP Instructional Staff

Category Description	Number in Category	% of Total Instructors
SEX		
Male	7	18
Female	32	82
ETHNICITY		
Anglo	26	67
Black	10	26
Mexican-American	3	7

Table (Cont'd.)

Category Description	Number in Category	% of Total Instructors
HIGHEST DEGREE EARNED		
None	2	5
Associate	2	5
Bachelor's	25	64
Master's	9	23
Doctorate	1	3
YEARS OF TEACHING EXPERIENCE		
0	15	38
1-3	7	18
4-6	10	26
7-9	4	10
10 or more	3	8
YEARS OF RELATED EXPERIENCE		
0	10	26
1-3	10	26
4-6	3	8
7-9	5	13
10 or more	11	27

Items of note include the proportion of minority staff (1/3), the proportion of staff holding advanced degrees (more than 1/4), the proportion of staff who had not taught previously (more than 1/3), and the years of related experience (48% of the staff have more than four years related experience). Indicative of the professional quality of the staff were the credentials and certifications held. These are presented here.

2	Certified Dental Assistants
1	Certified Dental Hygienist
6	Certified Laboratory Technologists
1	Registered Dental Laboratory Technician
10	Registered Nurses
1	Doctor of Medicine

4. A survey of the instructional staff in late November resulted in an enumeration of deficiencies in the plan or operation of the HSHP. The bulk of the deficiencies identified by the staff involved facilities. Most often these deficiencies referred to the Academic Center and concerned pencil sharpeners, a library, lockers, storage space, and shelving. With the exception of

the chemistry class, in which laboratory activities were severly limited by the physical facilities, individual clusters noted no major deficiencies which hampered instruction. The inadequacies of the physical plant were the focal points of much administrative activity, and it was ultimately decided to relocate the academic center for the 1977-78 school year.

Classroom observations were made by the evaluator during the third quarter. Classes of each instructor were observed on two occasions for a period of not less than thirty minutes. The purpose of these observations were (1) to identify discrepancies between program design and implementation, (2) to note any impediments to learning, and (3) to characterize class activities and instructional methods. The major findings are presented here.

a. The programs at the HSHP were being implemented in a manner which closely coincides with the design.

b. The area of greatest discrepancy between intention and actuality was that of individualization of instruction. The level of individualization was generally lower than that which was prescribed.

c. The programs were not hampered by shortages of supplies or materials; however, deficiencies of the physical facility itself did impact learning.

It is the judgement of the evaluator that alterations in the physical facility, increases in instructors' skills in individualized instruction and expansion of the role of coordinator to in-class instructional supervisor would contribute to more complete and productive program operation. It seems reasonable to expect that "start-up" difficulties and physical deficiencies which have hampered operation this year will not prevail in the coming year. Furthermore, revisions of portions of the curriculum in several clusters should promote even a greater degree of congruence between design and implementation.

5. Perhaps the most significant career exploratory activities at the HSHP were the tours and trips which students made to community health care facilities. At the ninth-grade level, the most conspicuous activity was a series of visits to area hospitals. Virtually every ninth grader visited two hospitals. To accomplish this more than fifty field trips were scheduled. Host facilities included Baylor University Medical Center, Charlton Methodist Hospital, Children's Medical Center, Medical City Dallas Hospital, Methodist Central Hospital, Parkland Memorial Hospital, Presbyterian Hospital of Dallas, Richardson General Hospital, St. Paul Hospital, and Veterans Administration Hospital.

In addition to touring hospitals, HSHP students were addressed by health professionals from the areas of emergency medical technology, medical illustration, dental health education, gerontological social services, veterinary medicine, podiatry, obstetrics, and others. These persons spoke to classes, answered students' questions, and frequently gave demonstrations or presented exhibits.

Activities involving interactions with the professional community were not limited to the ninth-grade program although they were more prevelent there. In the advanced programs, students visited Baylor Dental School, the Dallas County Dental Society's Mid-Winter Clinic, the dental departments at Children's Medical Center and at Parkland Memorial Hospital. Additionally students assisted in the health department's Oral Hygiene program, visited the Martin Luther King Center Dental Clinic, and heard speakers from the American Red Cross (on CPR), the Dallas police department (on narcotics and drugs) and others.

Further community-oriented activities included paid and non-paid work experiences. The bulk of these experiences centered in the HOCT program for seniors. Thirty-one students participated in this program. Twelve students from the dental-related clusters were involved in work experiences in either private dental offices or commercial laboratories. A significant portion of the non-paid work experience centered in the internship portion of the Health Assistant program. Under this internship, all students in the program who passed the Red Cross first-aid course were involved in a nine-week non-paying internship which provided experiences in three settings--school health, hospital, and community health agency.

In brief, a great number of community-based learning activities were incorporated into the program at the HSHP. However, a comparison between the intended and actual community-based experiences at the ninth-grade level indicates that a number of the activities prescribed in the curriculum were not implemented. The evaluator attributes this to the generally unsettled state of the curriculum at the beginning of the school term. Through the course of the term, work proceeded to develop a revised set of community experiences. This new plan appears to provide a structured schedule of activities and also better coordination between in-class and community-based activities.

6. Staff members and/or students of the High School for Health Professions participated in the District's career education information program. This program, which was held January 11 through January 25, took HSHP representatives to each high school and middle school in the District. Sixteen staff members participated and contributed a total of 44 person/days to the project. Approximately 45 students were involved in the program.

Activities varied greatly from school to school. At some middle schools, a group of eighth-grade classes were brought to the auditorium each period. There they viewed the film on Career Development Centers and magnet schools. Afterward, students had an opportunity to discuss the film with representatives of the various career education facilities. Staff from the HSHP who experienced this method found it very effective. At other middle schools, the entire eighth-grade class was brought to the auditorium to view the film during the first period. During the remainder of the day, representatives of the schools rotated from classroom to classroom. At times a HSHP representative spoke to as many as five classes during a 55-minute period. Under this system, a staff member had three to five minutes per class. Staff members who experienced this arrangement found it to be ineffective and exhausting. At the high schools, activities varied from rotating between classes to sitting at an "information table" in the cafeteria during lunch. The typical circumstance involved the HSHP representative making a presentation each period in a ninth-grade English class. These presentations followed the first period general presentation, which was held in the auditorium.

All of those from the HSHP involved in the recruiting recognize the importance of the information disseminating program. It is the general consensus that staff and student involvement with prospective students is a vital part of a successful effort. Although the recruiting procedures utilized these elements, the overall program is considered by participants to be less than maximally efficient. Several sources of inefficiency were noted. These included:

a. differences of opinion between staff and team captains concerning the purposes of recruiting,

b. differences of procedure from school to school,

c. the large number of institutions that were represented--six magnet schools and four CDC's, and

d. the many concepts to be discussed, i.e., career education, full- or part-time enrollment, course offerings, transportation, etc.

7. The following tables describe the performance of the ninth- and twelfth-grade students at the HSHP on the Iowa Tests of Educational Development (ITED). The tables allow for comparison of the students to the entire group of DISD students who were administered the ITED in the Fall of 1976. The test results are not measures of program effect; the tests were administered to provide information relative to students abilities to program managers so that programs could better be suited to the needs of the students.

Examination of the tables reveals that the means of the ninth-grade HSHP group were virtually identical to the means of the total DISD population.

These tables also present the percentile rank which corresponds to the median (the score below which one-half of the scores fall) of the HSHP group. The percentile is based upon the large city norms. As can be seen, the median HSHP score falls well below the median (the 50th percentile) of the norm group. That is, students entering the HSHP were, on the average, achieving at a lower level than the average of the norm group.

An examination of the distribution of scores reveals a variability which is indicative of a wide range of academic achievement within the group of HSHP students. For example, while one-fourth of the ninth graders fell below the 15th percentile, one-fourth of the same group were above the 57th percentile.

Comparison of Means, Standard Deviations, and
Median Percentiles on the ITED of HSHP and
Total DISD--9th Grade

Subtest	HSHP (n=310)			DISD		
	Mean	SD	Median Percentile (Large-City Norms)	Mean	SD	Median Percentile
Reading	27.3	13.7	27	27.6	13.7	28
Language Arts	27.4	13.1	33	27.2	12.2	28
Mathematics	7.4	3.6	37	7.9	4.1	38
Social Studies	14.5	5.9	33	14.1	5.8	29
Science	14.4	6.7	25	14.4	6.8	26

Comparison of Means, Standard Deviations, and Median Percentiles on the ITED of HSHP and Total DISD--12th Grade

	Group					
	HSHP (n=43)			DISD		
Subtest	Mean	SD	Median Percentile (Large-City Norms)	Mean	SD	Median Percentile
Reading	33.7	17.8	18	41.9	21.1	34
Language Arts	31.7	15.2	16	39.7	17.9	34
Mathematics	8.6	5.4	22	11.8	7.3	34
Social Studies	16.5	7.6	19	20.0	8.7	30
Science	16.7	8.0	14	20.9	10.1	32

Additional Information:

SE77-045-9-7 Evaluation of the High School for Health Professions, 1976-77, 1977, Dennis L. Moon.

Abstract

Evaluation of the Computer-Aided Instruction
Mathematics Drill and Practice
Program 1976-77

Evaluator: James P. Papay

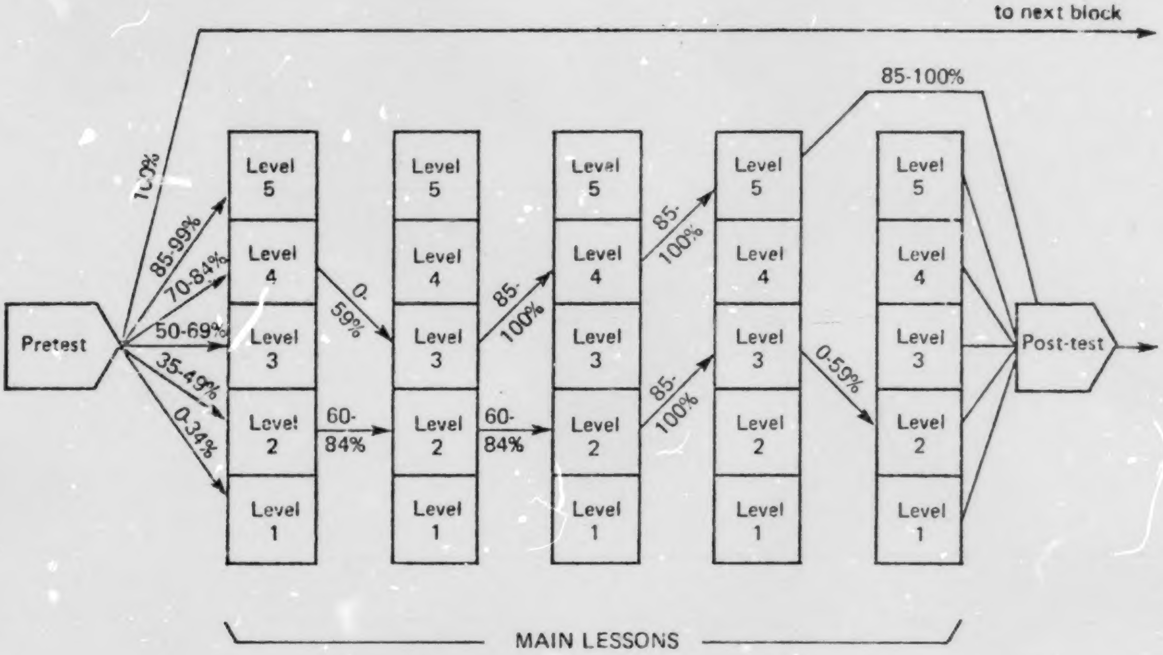
Objectives of the Program: The Drill and Practice Mathematics Program recently implemented in the District is offered by two different computer-aided instruction (CAI) systems. The Computer Curriculum Corporation (CCC) System provides instructional services via four terminals at Samuel High School, six terminals at Stonewall Jackson (Dallas Regional Day School for Deaf), two terminals at Spence, and eight terminals located at the Mark Twain Vanguard School. The Hewlett Packard (HP) CAI System provides instructional services via eight terminals located at the Holmes Academy, eight terminals at the P. C. Anderson Academy, twelve terminals at the M. H. Jackson Vanguard School, and four terminals at the Polk Vanguard School. Schools served by the CCC CAI System use Hazeltine Modular One Cathode Ray terminals. Schools using the HP CAI System use Teleray 3811 terminals. The Vanguard Schools primarily use CCC's mathematics, reading, and language arts curriculum; whereas, the HP system uses its own mathematics program but also uses the CCC reading and language arts curricula. The objective of the project was to increase mathematical performance of students by providing ten minutes a day of additional CAI mathematical drill and practice.

Purpose of the Report: The purpose of the present report was to summarize information on the effectiveness of the Computer-Assisted Instruction (CAI) Drill and Practice Mathematics Project. Information from standardized tests, criterion-referenced modular tests, specially generated computer evaluative tests, affective instruments, and anecdotal process evaluation information were presented.

Test Instruments:

Shaw-Hiehle Computation Test. The Shaw-Hiehle Computational test is a standardized test involving the basic arithmetic processes on whole numbers, common fractions, decimal fractions, percents, and practical arithmetic applications. The main purpose of the test is to provide information on the number of arithmetic problems a student can solve correctly within a time limit.

Criterion-Referenced Tests. The Hewlett-Packard Math Curriculum (HP Math) is constructed on a "block" basis. Each block of instruction has a pre- and posttest to determine subsequent mastery levels. Progress through each block is initially determined by pretest, but once within the block students are sequenced to one of five levels of difficulty based upon performance at the previous level. The posttest over each block samples performances at each level of difficulty. Consequently, the posttest, for evaluation purposes, is a more conservative test of actual learning growth because it contains items from each level of difficulty even though students may not have received practice with the most difficult material. The reader should note this point in reviewing the results; especially, in those rare cases where performance appeared to decline from pretest to posttest. Figure 1 illustrates the paradigm that permits multiple paths through the CAI Drill and Practice curriculum blocks.


to next block
100%
85-99%
70-84%
50-69%
35-49%
0-34%
Pretest
Level 5
Level 4
Level 3
Level 2
Level 1
0-59%
60-84%
85-100%
85-100%
85-100%
85-100%
0-59%
60-84%
85-100%
Post-test
MAIN LESSONS

→ indicates path through curriculum block based upon achievement in previous block indicated by percentage

Figure 1 Progress Through Curriculum Block

Regardless of the posttest score, the student goes on to the pretest of the next lesson block. Although posttest scores have no effect on a student's progress through the curriculum, they do determine whether review lessons will be given. Any block which a student fails to master is scheduled for review at a later date.

Computer-Generated Tests. A twenty-item and an eighteen-item test were generated by the computer using an algorithm that randomly selected test items from the instructional blocks comprising the fourth and sixth grade CAI Drill and Practice curriculums, respectively. These tests were used to compare the performance of students that received the ten minute-a-day drill and practice computer-assisted instruction sessions with samples of students not receiving this additional instruction.

Computer-Assisted Instruction Questionnaire: The CAI Questionnaire consisted of a 12-item, 5-distractor multiple choice instrument designed to obtain information such as teacher attitude, equipment up-time, and other process information useful in the project evaluation. Appendix C shows the instrument.

State-trait Anxiety Inventory. The STAI consists of two 20-item, 4-distractor multiple choice type of instruments designed to obtain self-reportings of trait and state anxiety. These instruments were used to obtain baseline indices of teacher trait and state anxiety via standard instructions and to obtain state anxiety reactions to the use of CAI during the project through specialized instructions.

State-trait Anxiety Inventory for Children. The STAIC is an instrument similar to the STAI, but it was specially designed for use with primary grade children. The STAIC was used exactly like the STAI described previously.

Sample: The sample used for the affective data consisted of all the students initially assigned to the CAI treatment group at Jackson, Polk, Holmes, and Anderson who had both pretest and posttest data. Twain was not included because of the late start-up time and because that school concentrated on reading programs during school time.

The sample used to assess achievement on the Shaw-Hiehle Computational Test for the CAI treatment was a subset of the affective data sample with the stipulation that there was complete pre- and posttest data. The corresponding control group students were either randomly selected from testing rosters or were matched according to pretest scores from the Fall testing program.

The sample for the criterion-referenced test data consisted of all the students participating in the CAI drill and practice mathematics project at O. W. Holmes. O. W. Holmes was selected as the site-test school because it was one of the first schools to operationalize the CAI project, which was in operation for approximately two-thirds of the school year.

The sample for the fourth grade performance level computer generated paper and pencil tests consisted of 40 treatment and forty control students selected randomly. In addition, a second control group of forty students was selected by matching their pretest scores on the Shaw-Hiehle Computation Test, which was administered at the beginning of the school year, to those of the treatment group. Matching was as exacting as possible. The samples for the sixth grade performance level consisted of 10 treatment and 10 control students selected randomly.

Investigation Design: The evaluation designs were configured to specifically answer the questions under consideraton. However, these designs generally can be subsumed under the no control pretest-posttest design, the posttest-only control group design, or the pretest-posttest control group design.

The evaluation design used for the analysis of the affective and criterion-referenced data consisted of a no control pretest-posttest design schematically represented as:

$$O_1 \; X_i \; O_2$$

The treatments (X_1) represent the CAI blocks of instruction while the observations (O_1, O_2) represent the affective or criterion-referenced pretest and posttest scores.

The design used for the analysis of the computer-generated mathematics tests was a posttest-only control group design. The design might be represented as:

$$\begin{array}{ccc} R_1 & X_1 & O_1 \\ \hline R_2 & & O_2 \end{array}$$

The treatment (X_1) consisted of the ten minute-a-day drill and practice HP mathematics program, the observations (O_1, O_2) consisted of the computer-generated mathematics tests for the treatment and control groups, respectively, and R_1, R_2 symbolicly represent random selection procedures. However, it should be noted that the second control group at the fourth grade performance level was not randomly selected. Rather, it was matched (as nearly as possible) with the treatment students on the basis of the Shaw-Hiehle Computational Test pretest administered at the beginning of the school year.

The design used for the analysis of the standardized achievement data was a pretest-posttest control group design that can be represented as:

$$\begin{array}{cccc} R_1 & O_1 & X_1 & O_2 \\ \hline R_2 & O_3 & & O_4 \end{array}$$

The treatment (X_1) consisted of the CAI treatment, the observations (O_1, O_3) and (O_2, O_4) consisted of the standardized pretest and posttest scores, respectively; while, R_1 and R_2 symbolically represent random selection procedures. This paradigm was used in the analysis of data from schools using the Hewlett-Packard Curriculum such as Holmes and Polk. However, schools that used the ICSP curriculum such as Jackson and Anderson were analyzed using a matched samples paradigm.

The major evaluation questions that the present study sought to answer were:

1. Was the CAI project implemented as specified?
2. Were achievement gains on standardized achievement test significant as a function of CAI in comparison to control groups?
3. Were a sample of CAI students significantly superior to non-treatment students on specially prepared mathematical skill tests?
4. Were the achievement gains on criterion-referenced CAI curriculum tests significant?
5. What was the attitude of teachers and proctors toward CAI?
6. Was CAI anxiety provoking for teachers?

7. Was CAI anxiety provoking for students?

8. Was the CAI approach generalizable to other curriculum areas?

Evaluation Results: The evaluation results will be considered question-by-question.

Question 1.

Original project plans called for implementation of the CAI Drill and Practice Mathematics Project in early Fall, 1976. However, difficulties with shipment of equipment, wiring, phone installation, carrell construction, printer installation, training, equipment shakedown, and staff recruitment prevented original timelines from being met. These problems varied with school and type of CAI equipment. For example, O. W. Holmes was operational for approximately two-thirds the school year while Polk was, in effect operational for only approximately one-fourth of the year. Problems of this nature are not unusual during the initial start-up of any complex technologically intensive educational system and should not present problems during subsequent school years.

Question 2.

Table 1a
Means (M) and Standard Deviations (SD) by
Grade Level for the ICSP Curriculum on
the Shaw-Hiehle Computation Test for
a Matched Group of Students

Placement at Grade Level	CAI						Control					
	Pretest			Posttest			Pretest			Posttest		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Fourth	54	2.87	.95	54	4.05	.91	35	2.82	.91	35	4.00	.81
Fifth	59	3.38	.88	59	5.08	5.88	26	3.75	1.08	26	5.19	1.34
Sixth	44	4.61	1.19	44	5.98	1.44	39	4.08	1.23	39	5.14	1.38

Inspection of Table 1a shows that ten minutes a day of CAI instruction at the fourth and fifth grade levels of performance did not significantly increase achievement in comparison to the control that did not receive the additional CAI treatment. However, by the sixth grade placement level, an analysis of covariance showed that the CAI groups' performance was significantly superior to the non-treatment group, $\underline{F}$ (1, 80) = 4.08, $\underline{p} < .04$. These results are impressive given that the CAI treatment consisting of ten-minutes a day of instruction was implemented for only approximately half of the school year.

Table 1b

Means (M) and Standard Deviations (SD) by Grade Level for the HP Curriculum on the Shaw-Hiehle Computational Test for Randomly Selected Students

Placement At Grade Level	CAI						Control					
	Pretest			Posttest			Pretest			Posttest		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Fourth	14	3.72	1.10	14	4.56	1.56	6	2.42	1.08	6	3.77	1.22
Fifth	27	3.80	.66	27	4.77	1.00	31	4.05	.67	31	5.22	.91
Sixth	36	5.09	4.47	36	6.9	5.92	35	4.71	.69	35	6.10	.92

Inspection of Table 1b shows that again there were no significant differences between the CAI and comparison groups at the fourth and fifth grade placement levels. However, at the sixth grade placement level, an analysis of covariance showed that the CAI students were superior to the comparison groups as measured by the Shaw-Hiehle Computational Test, F (1,66)=5.07, p<.03.

Question 3.

Table 2a

Performance of the CAI Treatment Students and Non-Treatment Students at the Fourth Grade Placement Level on Computer-Generated Tests

CAI Treatment			Non-Treatment Random Control			Non-Treatment Matched Control		
N	M	SD	N	M	SD	N	M	SD
40	85.5	13.75	40	84.5	14.85	40	71.0	23.98

Inspection of Table 2a shows two major findings. First, the CAI students significantly outperformed the matched control of non-treatment students with whom they started the year (in terms of Shaw-Hiehle pretest scores), t (79) = 10.58, p<.0005. And, secondly, the CAI students, who were identified by teachers as being a grade level or two behind in mathematics, actually surpassed their peers, although this difference was not statistically significantly different. These results suggest that computer-assisted instruction may have impressive instructional utility in the District.

Table 2b

Performance of CAI Treatment Students and
Non-Treatment Students at the Sixth Grade Placement Level
on Computer-Generated Tests

CAI Treatment N	CAI Treatment M	CAI Treatment SD	Non-Treatment N	Non-Treatment M	Non-Treatment SD
10	81.80	21.29	10	56.20	11.64

Inspection of Table 2b shows that the CAI drill and practice treatment group significantly outperformed the non-treatment group, _t_ (19) = 9.62, $p < .01$, on the computer generated mathematics test covering sixth grade level material. Moreover, it should also be noted that, on a straight school graded percentage basis, the CAI group average was a _B_ average compared with an _F_ average for the non-CAI group Appendix B shows the test used for comparison purposes.

Question 4.

Table 3a

Means (M), Standard Deviations (SD), and
Gain Scores on First Grade HP Math Curriculum

Block Number	Unit	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Gain Score
1	Counting	10	79.3	21.3	94.3	6.2	15.0**
2	Counting	10	95.6	4.0	93.7	8.8	-1.9
3	Addition	10	78.1	19.4	88.8	15.5	10.6**
4	Addition	9	93.7	6.6	95.8	9.8	2.1
5	Subtraction	9	81.2	23.6	95.8	6.6	14.6**
6	Addition	8	89.8	12.5	87.5	13.6	-2.3
7	Subtraction	9	74.3	16.5	84.7	15.3	10.4**
8	Addition	8	88.3	10.6	91.4	8.8	3.1
9	Addition	7	92.9	7.0	89.3	11.9	-3.6
10	Subtraction	7	83.0	15.6	82.1	10.3	-0.9
11	Counting	6	91.5	7.9	93.5	5.5	2.0
12	Addition	5	81.2	23.0	86.2	21.8	5.0
13	Addition	4	77.8	10.9	91.9	2.5	14.1**
14	Subtraction	4	79.9	28.2	82.9	17.0	3.1

**p <.01 or beyond

Inspection of Table 3a shows that pupils placed at the first grade level taking the HP Mathematics Drill and Practice Curriculum showed positive gains on ten of the fourteen blocks of instruction. Five of these positive gains were significant gains as determined by Students' Critical Ratio Tests. A Sign Test comparing total positive to negative changes across curriculum blocks yielded a probability value equal to .09 which was interpreted as showing consistent criterion-referenced performance increases. Ten minutes a day of CAI drill and practice significantly increased pupil performance for mathematical computations at the first grade placement level.

Question 4.

Table 3b

Means (M), Standard Deviations (SD), and Gain Scores on Second Grade HP Math Curriculum

Block			Pretest		Posttest		Gain
Number	Unit	N	M	SD	M	SD	Score
1	Addition	20	81.6	19.2	90.3	11.8	8.8**
2	Subtraction	21	81.8	14.0	80.1	15.1	-1.8
3	Add & Subtraction	17	71.6	12.4	82.3	12.2	10.7**
4	Add & Subtraction	12	72.8	21.1	79.5	15.4	6.7*
5	Addition	11	82.8	11.2	91.9	10.4	9.1**
6	Addition	11	84.5	11.7	89.7	13.9	5.2*
7	Subtraction	6	82.3	9.3	83.4	22.1	1.1
8	Add & Subtraction	5	90.2	7.9	94.6	5.8	4.4
9	Units of Measure	5	53.7	21.5	83.7	15.1	30.0**
10	Addition	4	88.3	15.1	85.7	17.2	[illegible].6
11	Subtraction	4	78.3	17.0	82.7	17.5	4.4
12	Add & Subtraction	4	74.4	21.3	81.5	9.0	7.1

*p<.05
**p<.01 or beyond

Inspection of Table 3b shows that there were positive gains in ten of the twelve curriculum blocks. Six of these ten gains were shown to be significant on the Students' Critical Ratio Tests. Moreover, a Sign Test comparing positive to negative changes across curriculum blocks yielded a probability value of .05 which was interpreted as showing consistent criterion-referenced performance increases. Ten minutes a day of CAI drill and practice significantly increased pupil performance for mathematical computations at the second grade level.

Question 4.

Table 3c

Means (M), Standard Deviations (SD), and
Gain Scores on Third Grade HP Math Curriculum

Block Number	Unit	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Gain Score
1	Add & Subtraction	54	67.9	19.0	75.3	17.6	7.4**
2	Add, Sub, & Ineq.	49	54.2	21.6	70.0	23.4	15.8**
3	Addition	37	70.5	27.1	83.4	24.4	12.9**
4	Subtraction	28	67.0	25.0	73.4	25.3	6.4**
5	Addition	26	91.2	7.9	94.8	4.6	3.6*
6	Subtraction	24	85.0	12.2	87.1	10.4	2.1**
7	Multiplication	19	80.5	26.7	83.5	21.5	3.0
8	Addition	17	88.7	10.8	94.5	3.9	5.8**
9	Subtraction	16	79.2	23.7	81.2	18.7	2.0
10	Units of Measure	15	30.4	25.9	46.2	19.6	15.8**
11	Fraction Recognition	13	39.9	18.8	57.7	25.7	17.8**
12	Mixed Drill	12	67.1	16.6	82.5	18.5	15.4**
13	Mixed Drill	10	83.2	11.9	89.2	7.3	6.0**
14	Multiplication	8	83.7	18.0	83.7	24.1	0.0
15	Division	6	94.4	7.1	94.4	6.0	0.0
16	Units of Measure	5	48.8	29.4	58.5	23.9	9.7*
17	Fractions	4	74.1	27.9	97.7	2.3	23.6**

*p<.05
**p<.01 or beyond

Inspection of Table 3c shows that fifteen of the seventeen blocks of instruction produced positive gains. Critical Ratio Tests showed thirteen of these gains to be significant gains. Because there were no pretest to posttest losses, a Sign Test was calculated, in this case, comparing significant to non-significant performances across blocks of instruction yielding a probability value of .025. Obviously, ten minutes a day of CAI drill and practice instruction significantly increased student performance on mathematical computations at the third grade level.

Question 4.

Table 3d

Means (M), Standard Deviations (SD), and Gain Scores on Fourth Grade HP Math Curriculum

Block Number	Unit	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Gain Score
1	Addition	95	83.9	13.5	91.5	10.1	7.6**
2	Subtraction	66	81.1	18.1	85.3	16.9	4.1**
3	Multiplication	64	79.6	23.4	85.6	18.8	6.0**
4	Division	56	80.7	29.3	86.3	23.7	5.6**
5	Add & Subtraction	43	84.9	11.3	88.0	11.6	3.2**
6	Units of Measure	25	43.4	19.2	49.2	14.4	5.8**
7	Multiplication	24	89.2	17.0	91.5	12.5	2.3*
8	Mixed Drill	25	87.0	9.2	86.1	12.1	-0.9
9	Fractions	18	46.9	20.4	70.8	22.7	23.8**
10	Division	13	87.4	11.3	93.8	4.8	6.4**
11	Multiplication	11	90.6	11.3	96.6	4.8	6.0**
12	Mixed Drill	11	72.4	11.6	80.3	9.0	7.8**
13	Units of Measure	9	43.9	12.7	53.4	19.0	9.5**
14	Division	5	88.0	3.9	93.8	2.1	5.8
15	Commutative Laws	5	93.7	5.6	100.0	0.0	6.2**
16	Multiplication	4	93.0	2.8	97.9	1.4	4.9

*p<.05

**p<.01 or beyond

Inspection of Table 3d shows that there were positive gains on fifteen of the sixteen instructional blocks at the fourth grade level. Critical Ratio Tests showed that thirteen of the sixteen positive gains were significant gains. Because there was only one loss, the Sign Test was only calculated comparing significant performance to non-significant performance rather than for instances of positive to negative gains. Nonetheless, the results again yielded a probability level of .011. Again, ten minutes a day of CAI drill and practice instruction significantly increased student performance on mathematical computations at the fourth grade level.

Question 4.

Table 3e

Means (M), Standard Deviations (SD), and
Gain Scores on Fifth Grade HP Math Curriculum

Block Number	Unit	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Gain Score
1	Add, Sub, & Multipl.	63	79.9	15.2	91.6	11.6	11.7**
2	Multiplication	57	92.4	9.5	94.3	7.2	1.9**
3	Division	34	71.1	18.0	83.1	18.9	12.0**
4	Fractions	22	60.3	22.4	65.8	22.8	5.5**
5	Fractions	16	69.7	26.7	78.4	20.9	8.7**
6	Decimals	15	87.1	23.8	93.4	7.2	6.4**
7	Fractions	9	52.1	28.9	61.3	28.6	9.2*
8	Units of Measure and Equalities	7	50.6	25.9	54.8	30.9	4.2
9	Decimals	6	77.1	35.0	91.8	6.5	14.7**

*p<.05
**p<.01 or beyond

Inspection of Table 3e shows that there were positive gains in all nine blocks of instruction. Critical Ratio Tests showed that eight of the nine gains were significant. A Sign Test calculated across blocks of instruction comparing significant to non-significant performance instances yielded a probability value of .020. Clearly, ten minutes a day of CAI drill and practice instruction in mathematical calculations increased student performance for mathematical computation at the fifth grade level.

Question 4.

Table 3f

Means (M), Standard Deviations (SD), and Gain Scores on Sixth Grade Math Curriculum

Block Number	Unit	N	Pretest M	Pretest SD	Posttest M	Posttest SD	Gain Score
1	Add & Subtraction	116	88.1	11.0	95.1	5.5	6.9**
2	Multiplication	111	92.5	5.3	95.0	4.7	2.5**
3	Division	70	85.6	9.5	94.6	3.4	9.0**
4	Fractions	64	63.0	18.6	75.4	16.4	12.4**
5	Decimals	52	85.3	7.2	89.3	6.5	4.0**
6	Distributive Laws	45	67.4	21.0	84.6	14.9	17.2**
7	Fractions	35	75.0	16.9	86.3	9.7	11.2**
8	Decimals	24	85.1	19.5	87.2	19.4	2.1
9	Units of Measure	24	73.1	14.9	71.7	16.3	-1.4
10	Fractions	18	85.9	13.6	95.4	4.7	9.5**
11	Mixed Drill	15	90.1	7.9	94.8	6.9	4.7**
12	Mixed Drills	8	90.1	2.5	92.4	4.3	2.3
13	Ratios & Percent	6	91.0	8.5	98.6	2.0	7.6**
14	Fractions	6	92.6	3.3	98.0	2.2	5.5**
15	Inequalities & Exponents	4	90.8	7.8	90.8	7.8	0.0
16	Ratios & Percent	5	68.6	26.0	82.2	17.9	13.6*
17	Mixed Drills	4	87.3	7.0	91.5	2.4	4.2

*p<.05
**p<.01 or beyond

Inspection of Table 3f shows that there were positive gains in fifteen of seventeen blocks of instruction. Critical Ratio Tests indicated that the positive gains were significant in twelve of these cases. Two Sign Tests were calculated. The first calculation compared positive to negative gains across instructional blocks yielding a probability value of .001. The second test comparing significant to non-significant blocks yielded a probability value of .072. Again, ten minutes of CAI drill and practice instruction per day lead to consistent criterion-referenced performance increases in mathematical computations at the sixth grade level.

Question 5.

Table 4

Teacher Response Selections on the CAI Questionnaire

Questions	% Agreement		% Undecided		% Disagreement	
	Pre	Post	Pre	Post	Pre	Post
1. Computer-Aided Instruction (CAI) is a valuable teaching tool.	34.50	38.50	31.0	32.0	0.0	0.0
2. CAI should be used as an integral part of teaching.	34.50	39.0	25.0	22.0	3.0	0.0
3. Students are motivated by use of CAI.	53.50	44.0	0.0	11.0	0.0	0.0
4. The way I like to teach allows for the use of CAI.	34.50	39.0	25.0	16.0	3.0	3.0
5. The CAI instructional programs meet age and ability levels of my students.	47.0	41.50	0.0	11.0	3.0	3.0
6. CAI programs are relevant to my subject area.	40.50	50.0	19.0	6.0	0.0	0.0
7. I can schedule my lessons to coincide with appropriate CAI drill and practice or other programs.	25.50	36.0	19.0	16.0	15.6	6.0
8. I am familiar with the CAI programs which are offered in Dallas.	31.50	25.0	13.0	16.0	12.50	19.50
9. Long-range lesson-planning with use of CAI is possible.	22.0	28.0	50.0	33.0	3.0	5.5
10. At present I feel I can effectively use the CAI equipment to its expected potential.	31.0	19.50	25.0	28.0	6.5	14.0
11. I have the in-service training necessary to utilize CAI properly.	25.0	22.0	19.0	22.0	15.5	16.5
12. The CAI terminals in my school are kept in good working order.	44.0	41.50	13.0	16.0	0.0	0.0

Statistical analysis of the data summarized in Table 4 shows that, overall, there were no **significant attitudinal changes** from pretest ($\bar{x} = 2.21$, SD = .92) to posttest ($\bar{x} = 2.25$, SD = 3.02).* Teachers and proctors were initially favorably predisposed to CAI instruction, and they remained that way after their experience. However, it should be noted that there was more variance in opinions on the posttest. For example, teachers felt that they should receive more in-service training to most effectively use CAI. They also felt that system up-time could be improved and were irritated that there were no "backup terminals" in case of failure. Failure of a terminal meant that a student "lost his/her instruction for the day."

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*See **Appendix** C for the 5-point rating scale

Question 6.

Table 5
Means (M) and Standard Deviations (SD) for Teacher
State Anxiety Reactions to CAI

			Initial			Retroactive		
Trait Anxiety			A-State Anxiety			A-State Anxiety		
N	M	SD	N	M	SD	N	M	SD
12	31.18	8.04	13	31.17	7.59	18	32.35	8.73

Before discussing the data in table 5, several notions of Trait and State anxiety must be presented. Trait anxiety is the normal personality predisposition of a person's response to stress; whereas, State anxiety is a situational response to a perceived threat to self-esteem, fear-of-failure, or a specific stressful situation. Thus, Trait anxiety predicts level of A-State in ego involving stressful situations. Inspection of table 4 shows that Trait anxiety was at a moderate level suggesting that a moderate A-State level would be expected if teachers perceived CAI to be a non-threatening form of instructional aid. The data shows that this was the case. CAI was not initially interpreted as a threat nor was it perceived as one after the CAI experience. Statistical test indicated that the slight increase was not significant. These data corraborate the findings from process evaluations that indicated that teachers perceived CAI as a valuable teaching aid.

Question 7.

Table 6

Means (M) and Standard Deviations (SD) for Student State Anxiety Reactions to CAI

Grade Level	Trait Anxiety			Initial A-State Anxiety			Retroactive A-State Anxiety		
	N	M	SD	N	M	SD	N	M	SD
Fourth	47	30.33	7.81	59	32.35	7.58	45	32.36	8.28
Fifth	34	29.60	6.49	36	31.11	7.21	31	30.53	7.27
Sixth	47	30.33	7.14	49	35.08	7.49	31	34.93	6.14

Inspection of Table 6 shows that fourth and fifth grade level students did not react to CAI with increased state anxiety levels. Sixth grade level students, however, showed an initial stress reaction, but A-State reactions began to decline after some CAI exposure corraborating previous findings of Hansen, O'Neil, Papay, and Gallagher (1970) who investigated the effects of anxiety, CAI, and cognitive achievement in mathematics and reading via CAI teleprocessing from the Florida State CAI Center. Future evaluations may illuminate these findings.

Question 7.

Table 7

Effects of Ten Minutes a Day of CAI on Reading Performance: Frequency of Gains from Feb. 7, 1977 to May 23, 1977 on a Randomly Selected Group of Students from M. Twain

Sample	Students Showing Month for Month Gain	Students Showing More than Two Months Gain Per Month
20	6	4

Inspection of Table 7 shows that for a randomly selected group of twenty students at M. Twain half of the students gained a minimum of one month for ten minutes a day of CAI reading curriculum. The actual computer printout appears in Appendix D. The printout consists of the weekly progress report generally prepared for teachers so that they can provide individual help for students not progressing at a reasonable pace. These data show that CAI may be generalizable to other curricula areas such as reading.

Additional Information:

AR77-082-9-2 Evaluation of the Computer - Aided Instruction Mathematics Drill and Practice Program 1976-77, 1977, James P. Papay.

APPENDIX A
FOURTH GRADE TEST

NAME ____

1. 95
+ 1

2. 57
- 4

3. 24
+ 15

4. 88
- 31

5. 789
+ 210

6. 599
- 308

7. 80
- 9

8. 129
+ 614

9. 71
+ 19

10. 91
- 39

11. 665
- 108

12. 43
+ 8

13. 49
+ 74

14. 80
+ 87

15. 953
- 486

16. 829
- 251

17. 99
- 98

18. 492
+ 841

19. 612
+ 289

20. 6001
-1745

APPENDIX B
SIXTH GRADE TEST

NAME ____

1. .05 = $\frac{5}{\quad}$

2. Circle the correct answer: .33 is Less than / Greater than .4

3. .68 = $\frac{\quad}{100}$

4. Circle the correct answer: .69 is Less than / Greater than .9

5. Round off to the nearest tenth:

1.057	6.949	6.732	5.692
____	____	____	____

6. Round off to the nearest hundredth:

90.251	60.433
____	____

7. $\begin{array}{r} 1.13 \\ +\underline{8.32} \end{array}$

8. $\begin{array}{r} 7.85 \\ -\underline{1.84} \end{array}$

9. $\begin{array}{r} 3.418 \\ +\underline{4.130} \end{array}$

10. $\begin{array}{r} 6.949 \\ -\underline{1.001} \end{array}$

11. $\begin{array}{r} 11 \\ \times\underline{\ 8} \end{array}$

12. 1.1 x 8 =

13. $\begin{array}{r} 64 \\ \times\underline{\ 9} \end{array}$

14. 6.4 x 9 =

15. $\begin{array}{r} 7.062 \\ +\underline{1.408} \end{array}$

16. $\begin{array}{r} 84.81 \\ -\underline{32.15} \end{array}$

17. $\begin{array}{r} 3.951 \\ -\underline{2.077} \end{array}$

18. $\begin{array}{r} 7.104 \\ +\underline{1.671} \end{array}$

APPENDIX C

Computer-Aided Instruction (CAI) Questionnaire

NAME ____________________ SCHOOL ____________________ GRADE(S) ________

SUBJECT AREA(S) ____________ YEARS TEACHING ________ YEARS USING CAI ________

For statements 1-12 below please circle the alternative that best expresses your own opinion at the present time.

Strongly Agree	*Agree*	*Undecided*	*Disagree*	*Strongly Disagree*	
1	2	3	4	5	1. Computer-Aided Instruction (CAI) is a valuable teaching tool.
1	2	3	4	5	2. CAI should be used as an integral part of teaching.
1	2	3	4	5	3. Students are motivated by use of CAI.
1	2	3	4	5	4. The way I like to teach allows for the use of CAI.
1	2	3	4	5	5. The CAI instructional programs meet age and ability levels of my students.
1	2	3	4	5	6. CAI programs are relevant to my subject area.
1	2	3	4	5	7. I can schedule my lessons to coincide with appropriate CAI drill and practice or other programs.
1	2	3	4	5	8. I am familiar with the CAI programs which are offered in Dallas.
1	2	3	4	5	9. Long-range lesson-planning with use of CAI is possible.
1	2	3	4	5	10. At present I feel I can effectively use the CAI equipment to its expected potential.
1	2	3	4	5	11. I have the in-service training necessary to utilize CAI properly.
1	2	3	4	5	12. The CAI terminals in my school are kept in good working order.

Appendix D

Effects of Ten Minutes a Day of CAI on Reading Performance: An Illustration of Gains from Feb. 7, 1977 to May 23, 1977

HR:MM	To	WA	VOC	LC	IC	WS	AVG	ID
7 Feb 77								
0:22	0	4.0	4.0	4.0	4.0	4.0	4.0	1017
1:19	0	4.0	4.0	4.0	4.0	4.0	4.0	1027
1:26	0	4.5	4.5	4.5	4.5	4.5	4.5	1029
1:22	0	4.5	4.5	4.5	4.5	4.5	4.5	1031
1:33	0	5.0	5.0	5.0	5.0	5.0	5.0	1032
1:32	0	5.0	5.0	5.0	5.0	5.0	5.0	1034
0:20	0						3.0	1035
1:18	0	4.5	4.5	4.5	4.5	4.5	4.5	1036
1:22	0	4.5	4.5	4.5	4.5	4.5	4.5	1037
1:03	0	3.5	3.5	3.5		3.5	3.5	1038
0:09	2	4.5	4.5	4.5	4.5	4.5	4.5	1039
1:33	0	5.5	5.5	5.5	5.5	5.5	5.5	1040
0:19	1	5.0	5.0	5.0	5.0	5.0	5.0	1041
1:19	0	4.0	4.0	4.0	4.0	4.0	4.0	1042
0:41	0	4.0	4.0	4.0	4.0	4.0	4.0	1043
1:37	0	5.0	5.0	5.0	5.0	5.0	5.0	1044
1:24	1	5.0	5.0	5.0	5.0	5.0	5.0	1046
1:19	0	5.0	5.0	5.0	5.0	5.0	5.0	1062
1:21	0	4.0	4.0	4.0	4.0	4.0	4.0	1083
1:24	0	4.0	4.0	4.0	4.0	4.0	4.0	1391
23 May 77								
2:58	0	4.6	4.6	4.6	4.6	4.6	4.6	+1017**
7:13	0	4.4	4.4	4.4	4.2	4.4	4.3	1027*
8:21	0	4.7	4.9	4.8	4.8	4.8	4.8	1029*
8:59	0	4.9	5.0	4.9	4.9	5.0	4.9	1031*
8:35	0	5.2	5.3	5.3	5.2	5.3	5.2	+1032
9:00	0	5.5	5.6	5.5	5.5	5.4	5.5	+1034**
3:39	0	4.5	4.5	4.5	4.5	4.6	4.5	+1035
7:36	0	4.8	4.8	4.8	4.8	4.8	4.8	1036*
6:44	0	4.7	4.8	4.7	4.7	4.7	4.7	1037
7:57	0	4.4	4.4	4.4	4.3	4.4	4.3	1038**
1:24	0	4.5	4.5	4.5	4.5	4.5	4.5	1039
5:39	0	5.6	5.6	5.6	5.6	5.6	5.6	1040
0:19	1	5.0	5.0	5.0	5.0	5.0	5.0	1041
7:50	0	4.4	4.4	4.4	4.4	4.4	4.4	+1042*
7:38	0	4.9	5.1	4.9	5.0	5.0	4.9	1043**
8:46	0	5.4	5.5	5.4	5.4	5.4	5.4	+1044*
6:38	0	5.1	5.2	5.2	5.2	5.0	5.1	1046
7:44	0	5.3	5.4	5.3	5.3	5.2	5.3	+1062
4:25	0	4.2	4.2	4.2	4.1	4.2	4.1	1083
6:19	0	4.3	4.3	4.3	4.3	4.3	4.3	1391

---

*indicates approximately a month for month gain for ten minutes per day instruction

**indicates more than a month gain

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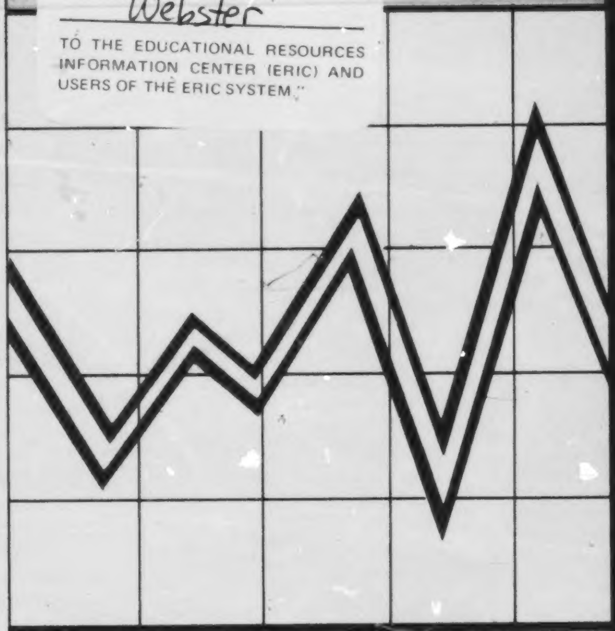
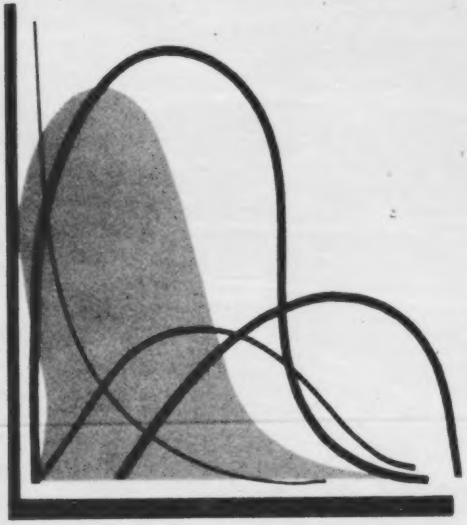
ABSTRACTS OF RESEARCH AND EVALUATION REPORTS
1976-77

VOLUME V — SPECIAL PROJECT EVALUATION
AND APPLIED RESEARCH





DEPARTMENT OF RESEARCH, EVALUATION AND INFORMATION SYSTEMS

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dallas independent school district

DR. NOLAN ESTES, *General Superintendent*

T177-029-3-1

Abstract

1976-77 Evaluation of the Targeted Achievement in Reading Program

Evaluators: Cordelia R. Alexander
Robert L. Mendro

Objectives of the Program: The Targeted Achievement in Reading Program (TARP) was intended to supplement the District's basal reading program by providing additional skill instruction in auditory and visual perception, word attack, comprehension, and communications. It was also expected that TARP would improve motivation to read and provide resources and stimuli to enhance self-concept.

TARP used the following three reading systems: Behavioral Research Laboratories/Sullivan (BRL), Hoffman Information Systems (Hoffman), and Southwest Regional Laboratories (SWRL). The performance objectives that follow relate to the use of either of the three reading systems correlated to the basal program. Upon completion of the 1976-77 school year by eligible Title I students using TARP: (1) all kindergarten students will demonstrate an educationally significant gain on the Metropolitan Readiness Test (MRT) administered as a pre- and posttest, (2) 50% and 20% of the kindergarten students will indicate a raw score of 40 or above and 60 or above, respectively, on the MRT administered as a posttest, and (3) students in grades 1-6 will demonstrate reading gains at the percentages and at the gain rates designated in Tables 1 and 2 as measured by the Vocabulary and Reading Subtests respectively of the Iowa Tests of Basic Skills administered as a pre- and post-test.

Purpose of the Evaluation: The process evaluation of TARP was designed to provide interim information to TARP management in order to assess the program's implementation process with special attention directed toward the effect of the newly created instructional coordination and resource services component of Title I. In a more specific sense, the process evaluation aspect of TARP was aimed at the determination of the program's operational needs, goal attainment, and the success of the instructional strategies used. It was also a year-end intention that meaningful relationships between product achievement results and process information would be specified. The purpose of the product evaluation of the TARP program was to determine if program goals were met and if different TARP programs had different effects on achievement.

Sample: Standardized achievement tests results were based on all students from the TARP population in grades K-6 with testing information available on the Title I data base. Approximately 9% or 160 of all

Table 1: Percentage of Gain* for Grades 1-6 in Reading Vocabulary

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0
Grade 1	7	93	88	81	72	64	56	48	48	41	35	31	27	21	15	11
Grade 2	16	84	79	75	69	65	59	54	48	42	37	28	19	12	7	4
Grade 3	17	83	80	74	70	64	60	54	49	44	38	29	21	14	10	7
Grade 4	27	73	72	64	61	55	50	45	40	36	31	23	17	12	9	6
Grade 5	33	67	65	58	53	46	41	36	31	27	22	15	10	7	5	3
Grade 6	29	71	68	63	59	53	47	42	36	33	27	20	16	11	9	6

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 2: Percentage of Gain* for Grades 1-6 in Reading Comprehension

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0
Grade 1	6	94	92	89	87	82	78	70	64	53	48	35	30	23	20	16
Grade 2	17	83	79	75	71	65	60	55	50	45	40	31	23	17	11	7
Grade 3	17	83	78	74	68	62	56	49	42	36	30	21	14	9	6	4
Grade 4	30	70	67	63	57	53	49	43	40	35	32	24	18	13	10	7
Grade 5	33	67	63	58	52	47	41	36	31	28	23	17	12	8	5	3
Grade 6	33	67	62	57	52	47	43	37	33	29	25	19	13	9	6	5

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

the TARP classes were observed across 70% of the Title I schools during the fall and spring process evaluation periods. Consequently slightly less than 10% of the TARP teachers were interviewed in the schools which were selected according to Dallas ISD sub-district, TARP reading system, and grade level. In addition, all 83 instructional resource teachers and 55 reading demonstration teachers were surveyed during each process evaluation. Some parents of TARP students were interviewed during Title I workshops.

Evaluation Design: All process evaluation data were collected by three evaluators during two periods of the school year: (a) November 8 through December 3, 1976, and (b) February 21 through March 31, 1977. The instrument used for classroom assessment was the Title I Classroom Observation Checklist-Teacher Interview; this instrument was intended to examine the extent of program implementation, the degree of individualization of instruction, the use of classroom management skills, and the type of teacher-student interactions. In addition, all instructional resource teachers and reading demonstration teachers assigned to Title I schools were asked to respond to the Title I Instructional Personnel Survey during December and May. The TARP start-up dates and other information related to personnel, student attendance, and program placement were collected from each Title I school by Title I data technicians. All process data were tabulated and percentages were determined when appropriate. Due to possible fundamental changes in the makeup of the Title I student population resulting from the desegregation order, product evaluations considered two populations of students: (1) all students who participated in TARP programs during the 1976-77 school year and (2) all students who participated in Title I programs in 1975-76 and who participated in TARP programs in 1976-77. The second group is a subset of the first and allows an accurate comparison of TARP programs in 1976-77 to objectives based on student populations in 1975-76. The product evaluation was in two parts: an analysis of the achievement gains of TARP students relative to the gain objectives based on 1975-76 student achievement and an analysis of differential effects of TARP programs utilizing the analysis of covariance with pretest score as the covariate and posttest score as the dependent variable. The covariance analysis considered only students with scores above a chance level since Title I testing reports indicate that significant proportions of the students in the District score at a chance level.

The major evaluation questions analyzed were:

1. Was the Targeted Achievement in Reading Program (TARP) implemented as proposed?

2. What were the characteristics of TARP and its participants?

3. What services were rendered to TARP students by the team of resource and demonstration teachers?

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4. What type and amount of individualized instruction was characteristic of the three programs of TARP?

5. Was the basal curriculum taught? To what extent was TARP supplemental instruction integrated with the total (basal) curriculum?

6. What was the effect of TARP from the aspect of participating parents and teachers?

7. To what extent were the reading achievement goals of TARP met?

8. Did TARP programs differ significantly in pre-post gain trends as measured by standardized tests?

9. What were the resulting costs of TARP?

Evaluation Results: The following results refer to the previously listed evaluation questions by number.

1, 2. The TARP program affected over 35,000 eligible Title I students and it was implemented as proposed in grade levels K-6. The BRL program served 23 Title I schools, Hoffman was assigned to 16, and 49 schools received SWRL. The start-up dates for the TARP systems varied between the months of August and October, 1976, according to school and classroom teacher. Table 3 summarizes the usual month of start-up dates and TARP program configuration by sub-district.

In August, 1976 an instructional resource teacher (IRT) was assigned to each of the 86 Title I schools to coordinate the Title I program under the direction of the individual school principals. Ten IRTs were each assigned to two schools, which meant that 20 Title I schools had half-time support of an IRT. Demonstration teachers (Demos) were assigned according to school population, the TARP system used, and other special reading needs relative to the school. As of February 7, 1977, the number of IRTs was increased by assigning new personnel and reassigning old personnel who formerly served half-time in two schools. These reassignments left three IRTs that each served half-time in two schools at the end of this school year.

Title I students were placed in TARP according to below grade level reading scores on the Iowa Tests of Basic Skills (ITBS) administered in the spring, 1976. Additional eligible students were assigned to TARP as late as November, 1976, according to the fall ITBS results.

Table 3: TARP Configuration and Start-Up Months

Number of Title I Schools by Sub-District		Number of Schools by Program			Number of Demonstration Teachers	Number of Teacher Aides		Months of Most Start Dates
		BRL	Hoffman	SWRL		TARP	Kindergarten	
Northwest	27*	7	2	19	7	34	22	Sept., Oct.
Northeast	16	2	9	5	13	33	10	Aug., Sept.
Southwest	13	5	1	7	4	24	15	Sept., Oct.
Southeast	13	2	1	10	3	15	9	Oct.
East Oak Cliff	17**	7	3	8	25	69	25	Aug.
Total	86	23	16	49	52	175	81	

* J. W. Ray School had both SWRL and Hoffman.
** Lisbon School had both BRL and Hoffman.

3. Approximately 80% of the instructional resource teachers (IRT) and reading demonstration teachers (Demos) responded to the Title I Instructional Personnel Survey over both process evaluation periods. At least 50% of the IRTs indicated the highest incidence of involvement in the following activities as projected in the Title I proposal: (1) diagnosing student needs, (2) integrating supplemental instruction and the total curriculum (basal), (3) working with Title I program coordinators to insure availability of materials and correct program implementation.

(4) monitoring supplemental classes, and (5) coordinating both supplemental reading and math.

These areas of concern were reported by IRTs to have affected the fall start-up dates of TARP most often: (1) school staff's familiarity with program, (2) personnel assignments, (3) eligibility determination, (4) arrival of program materials, and (5) teacher training. Approximately 25% of the IRTs indicated that their most pressing job-related problem was the amount of record keeping involved in Title I. Other problems frequently related were: (1) placement of transferred students, (2) lack of time to work with individual students, and (3) lack of teacher program development.

Most reading demonstration teachers (Demos) served between five and twelve or more classes each day. According to Demos, fall TARP start-up dates were affected frequently by: (1) arrival of program materials, (2) eligibility determination, and (3) personnel assignments. Demos indicated that their pressing job-related problems were: (1) large class sizes, (2) double labs coordinated by one Demo (Hoffman), (3) insufficient materials and supplies due to cut-back this year particularly in Beginning Reading Hoffman, (4) implementing decoding and comprehension components into the crowded language arts program (Hoffman), and (5) the placement of transferred students in TARP. There are more demonstration teachers assigned to Hoffman than either of the other two reading systems, consequently, the results indicated more Hoffman-related problems.

4. BRL: Students rotated daily through two or three groups defined by either of three types of activities: (a) programming - taught by classroom teacher; (b) reinforcement - basal or other supportive activities directed by teacher aide or Demo; and (c) enrichment - additional work directed by teacher aide or Demo. The demonstration teacher provided services as scheduled or needed. In grades K-3 classes, the programming group generally moved to a special area of the classroom for instruction, while in the higher grades, students remained seated in the three groups.

   Hoffman: Across all grades, K-6, class groupings were generally determined by skill development. The classroom teacher accompanied his/her homeroom or language arts class to the laboratory setting where the Demo led the instruction. The teacher aide(s) and classroom teacher worked with different groups of students for a 45-60 minute class period. Hoffman procedures were similar for each grade section across schools and grade levels. One Demo often directed two laboratories using the teacher aide(s) and classroom teacher for support.

SWRL: The classroom teacher implemented SWRL either with or without the services of a teacher aide at grades K-6. Teacher aides generally moved from one class to the other to accomodate the SWRL schedule at each school. SWRL K-3 classes usually indicated three groupings defined by skill development. These groups moved to the teacher or teacher aide for SWRL instruction. In grades 4-6 at various schools, SWRL was organized and taught as follows: (a) a SWRL reading teacher provided instruction for 30 minutes for students from several grade sections; (b) a reading teacher taught reading to each of four or five grade sections for one hour concentrating on both the SWRL and the basal programs; (c) a classroom teacher implemented the program in a few self-contained situations; and (d) a teacher did not rotate to all SWRL groups in a classroom each day - students worked independently with SWRL on certain days.

The following aspects of TARP were considered problems: (a) the placement of TARP students transferring either from within Title I schools or from other District schools, (b) teacher aides were observed involved in a major part of instruction instead of assuming the assistant-type role that the title suggests, and (c) teachers requested more effective staff training through real classroom demonstrations of how TARP might be taught. The major problem with TARP from the manager's viewpoint was coordinating instruction with management and determining the responsibility for some decision-making.

5. Indications of use of the basal curriculum were evident during classroom observations as groups of students used the specified textbook and completed teacher-made instructional materials which reportedly stemmed from the basal program. All teachers interviewed indicated use of the basal curriculum and the TARP supplemental program to teach reading skills.

   BRL, Hoffman, and SWRL were specified as supplemental instructional reading programs to be taught at least 45 minutes, 30 minutes, and 30 minutes, respectively. Teachers indicated daily minimum SWRL instructional time in varying portions of 15 to 90 minutes in grades K-3 and 15 to 30 minutes in grades 4-6. The daily minimum basal instructional time of a SWRL teacher was 15 minutes to two hours in grades K-3 and 20 minutes to one hour in grades 4-6. Hoffman instructional time was approximately 45 to 60 minutes across grades K-6; the basal program supported Hoffman in a daily teaching period of 20 to 90 minutes. BRL was taught for a period of 45 to 60 minutes daily in all grade levels. The basal program was taught for 30 minutes to 2 hours at grade levels K-3 and from 30 to 60 minutes at grade levels 4-6.

6. At least 70% of the 10% sample of TARP teachers interviewed indicated few problems in implementing TARP. More than half of the parents who attended TARP workshops at 14 different Title I schools generally felt that their children had increased reading skills. (See the Abstract entitled "1976-77 Evaluation of the Title I Community Involvement Program", Research Report number T177-034-3-5 for additional parental input.)

7. The results for the total TARP population for 1976-77 in reading vocabulary and reading comprehension are presented in Tables 4 and 5. Inspection of the data in these tables in conjunction with the objectives in Tables 1 and 2 indicates that in grade 1, vocabulary results were slightly below or slightly above most objectives indicating good achievement of objectives. Comprehension results were slightly below all objectives indicating only partial achievement of objectives. In grade 2 for both tests, results were slightly below or above all objectives indicating good achievement. In grade 3 for both tests, all results were well below objectives indicating poor achievement. In grades 4-6 for vocabulary, results were all near or above objectives, with the exception of the lower part of the grade 6 distribution, indicating that overall achievement was good to excellent. In grades 4-6 for comprehension all results exceeded objectives indicating excellent achievement. Since the Title I population at grades 4 through 6 possibly had changed fundamentally due to the implementation of the desegration order, a separate subpopulation of Title I students for 1976-77 who were also in Title I programs in 1975-76 was examined. To insure the comparability of this group to the 1975-76 total population, their gains in 1975-76 were compared to the total gains in 1975-76. The results of this comparison indicated virtually no difference in gains for the total population and the subpopulation on either test. The results for the TARP

Table 4: 1976-77 Gain* Distributions in Reading Vocabulary for all TARP Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	7.8	92.2	86.9	80.1	72.5	64.9	56.1	48.7	48.7	42.1	37.1	31.4	26.8	19.2	13.2	9.0	4403
Grade 2	15.7	84.3	79.8	75.5	69.5	65.0	59.8	53.0	46.9	41.7	37.2	27.0	18.7	11.5	6.8	4.0	3173
Grade 3	21.2	78.8	76.3	71.4	67.2	60.1	54.7	47.8	43.0	37.1	32.0	23.8	16.1	10.9	6.6	3.6	2940
Grade 4	27.8	72.2	70.8	64.7	62.0	56.6	51.9	47.0	42.3	38.8	32.5	24.6	19.2	13.9	10.3	7.4	3901
Grade 5	29.6	70.4	67.8	61.3	57.4	51.0	45.7	40.3	35.8	31.3	27.2	20.2	14.1	9.9	7.0	5.0	4100
Grade 6	31.5	68.5	66.1	60.8	56.8	51.5	46.9	42.7	37.9	33.8	30.1	23.3	18.1	13.3	9.6	7.3	4539

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 5: 1976-77 Gain* Distributions in Reading Comprehension for all TARP Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	6.9	93.1	90.2	86.3	84.0	78.9	75.9	68.2	63.4	51.9	46.7	32.9	26.0	18.9	15.6	11.6	4386
Grade 2	18.1	81.9	78.8	74.8	70.7	65.3	60.2	55.3	50.1	45.7	41.0	32.0	24.7	17.6	12.4	8.3	3163
Grade 3	20.5	79.5	74.9	68.8	63.5	57.1	50.9	43.6	37.4	31.6	26.2	18.1	11.5	6.7	3.8	2.5	2937
Grade 4	28.3	71.7	68.7	64.4	59.8	56.0	51.9	47.7	43.9	40.0	35.8	29.1	22.0	16.4	11.9	8.5	3896
Grade 5	27.6	72.4	68.7	63.7	58.7	53.5	48.4	43.2	38.2	34.1	29.4	22.1	15.6	11.0	7.7	5.4	4099
Grade 6	30.8	69.2	65.7	61.7	57.1	53.1	49.0	44.5	40.2	36.1	32.1	25.2	19.5	14.5	10.3	7.2	4545

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 6: 1976-77 Gain* Distributions in Reading Vocabulary for all Matched Group TARP Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	7.5	92.5	87.2	80.4	72.7	65.0	57.0	49.1	49.1	42.6	37.2	31.3	26.5	19.5	12.9	8.9	2473
Grade 2	16.9	83.1	78.5	74.0	67.9	63.1	57.7	51.4	45.6	40.5	36.3	25.7	17.9	10.6	6.5	3.8	2095
Grade 3	23.2	76.8	74.3	69.2	65.4	58.7	53.5	47.3	42.6	36.9	31.9	23.5	15.8	10.6	6.3	3.2	1995
Grade 4	29.3	70.7	69.6	63.2	61.2	55.8	51.2	46.6	42.0	38.6	31.9	24.1	19.0	13.7	10.4	7.5	2013
Grade 5	30.7	69.3	66.5	59.9	56.1	50.0	44.3	39.5	35.1	31.3	27.3	20.3	13.9	9.7	7.0	5.0	2164
Grade 6	32.8	67.2	64.4	59.0	55.0	49.3	44.7	41.0	35.8	32.0	28.2	21.6	16.5	12.2	9.0	6.9	2413

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 7: 1976-77 Gain* Distributions in Reading Comprehension for all Matched Group TARP Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	6.6	93.4	90.6	86.7	84.5	79.5	76.6	69.3	64.8	53.3	47.9	33.7	26.3	19.5	15.7	11.5	2460
Grade 2	20.4	79.6	76.3	72.1	67.6	62.0	56.6	51.8	47.0	42.5	37.9	29.6	22.4	15.4	10.2	6.7	2093
Grade 3	20.5	79.5	74.2	67.8	62.3	55.7	49.0	41.9	35.4	29.8	24.9	16.8	10.2	5.8	3.3	2.3	2003
Grade 4	30.9	69.1	65.9	61.1	56.1	52.3	48.3	43.7	40.0	35.9	31.5	25.5	19.8	14.7	10.8	7.6	2018
Grade 5	30.9	69.1	65.5	60.0	54.9	49.6	44.4	39.0	34.2	30.5	26.2	20.0	14.2	9.7	6.9	4.7	2166
Grade 6	34.3	65.7	62.0	57.8	52.8	49.0	45.1	40.1	35.4	31.3	27.1	20.7	15.1	11.3	8.1	5.6	2417

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 8: 1975-76 Gain* Distributions for Matched EOC Students in Reading Vocabulary

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	8.1	91.9	87.7	80.1	72.9	64.9	56.8	48.9	48.9	41.1	36.8	31.5	28.3	21.5	16.6	11.9	1105
Grade 2	16.6	83.4	79.1	75.0	69.3	63.5	58.3	52.9	46.2	40.6	34.8	26.1	16.8	10.2	5.6	2.8	1127
Grade 3	19.5	80.5	77.8	71.1	67.1	61.3	56.7	50.4	46.1	40.0	35.1	27.6	20.1	14.3	10.6	6.8	986
Grade 4	27.1	72.9	71.8	63.6	59.9	53.5	48.7	43.8	38.6	33.8	28.7	21.7	15.2	10.5	7.2	4.6	1145
Grade 5	33.1	66.9	64.7	56.6	52.4	45.4	40.2	34.6	30.3	26.4	21.1	14.4	9.7	6.9	4.4	3.3	1282

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* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 9: 1975-76 Gain* Distributions for Matched Non-EOC Students in Reading Vocabulary

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	8.0	92.0	86.4	78.9	69.3	60.3	51.9	45.2	45.2	38.4	32.3	27.9	24.3	18.6	13.2	9.5	1814
Grade 2	20.4	79.6	75.7	71.3	64.8	60.2	55.1	49.5	43.6	38.9	34.4	25.3	17.7	11.0	5.9	2.9	1516
Grade 3	20.3	79.7	77.5	71.1	66.9	59.5	56.5	51.3	47.1	41.8	34.7	25.8	17.4	11.6	7.3	4.3	1061
Grade 4	29.1	70.9	69.4	61.4	58.6	52.1	47.1	42.4	37.7	34.7	29.2	20.9	14.5	9.7	6.7	5.1	1299
Grade 5	36.5	63.5	61.1	54.3	50.1	42.8	37.7	32.7	27.0	24.2	18.7	12.3	8.0	5.3	3.4	2.0	1200

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* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 10: 1975-76 Gain Distributio
for Matched EOC S

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	6.9	93.1	90.4	87.2	85.4	80.0	76.6	68.1
Grade 2	17.4	82.6	78.8	75.0	71.3	65.6	59.8	53.9
Grade 3	19.3	80.7	76.4	72.2	65.4	58.5	52.4	47.1
Grade 4	31.6	68.4	64.8	60.1	54.7	50.8	46.2	41.6
Grade 5	34.4	65.6	61.6	57.1	51.0	46.1	39.4	34.8

* Gains above 0.0 are cumulative, i.e., they indica
equal to or larger than the given gain. Gains at
assigning a pretest score of .6.

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ns in Reading Comprehension
Students

.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
63.3	52.3	48.2	35.0	29.6	23.1	19.9	16.5	1109
48.5	43.5	39.4	29.3	21.1	14.7	7.7	4.9	1123
40.1	34.5	27.7	19.4	12.0	7.7	4.8	2.7	990
37.4	33.2	29.6	22.8	17.2	12.0	8.7	5.5	1143
29.0	25.6	21.0	14.8	9.4	6.0	3.4	2.0	1281

te the percentage of students with gains
Grade 1 are determined by arbitrarily

Table 11: 1975-76 Gain* Distributions in Reading Comprehension for Matched Non-EOC Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	7.0	93.0	91.4	88.6	87.1	82.0	78.1	69.0	63.4	51.6	45.8	32.6	27.3	21.0	17.4	13.7	1809
Grade 2	19.6	80.4	75.9	71.2	66.3	59.9	55.4	50.2	45.6	40.9	36.2	27.0	19.9	14.6	9.7	5.9	1518
Grade 3	19.3	80.7	75.6	71.1	65.7	60.5	53.5	46.5	39.1	32.5	27.5	18.0	12.3	8.4	5.4	3.0	1057
Grade 4	32.4	67.6	63.7	60.4	55.8	51.7	47.3	41.7	38.0	34.0	30.4	22.2	15.8	12.0	9.4	6.2	1295
Grade 5	36.3	63.7	59.4	54.1	49.0	44.4	39.4	33.4	29.5	25.5	21.4	15.6	10.6	7.4	4.8	3.1	1202

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* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 12: 1976-77 Gain* Distributions in Reading Vocabulary for Matched EOC Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	6.6	93.4	89.6	84.1	77.7	70.0	62.0	53.3	53.3	46.9	40.5	34.2	28.2	21.0	13.5	10.4	977
Grade 2	14.5	85.5	81.2	76.4	68.5	62.9	57.1	51.7	45.9	40.9	35.2	24.8	17.4	11.3	7.4	4.0	815
Grade 3	21.2	78.8	76.0	72.0	67.4	60.7	55.2	47.9	42.1	35.8	30.7	22.9	15.8	10.2	5.3	2.5	768
Grade 4	27.3	72.7	71.6	65.8	63.1	57.1	52.3	47.4	43.6	40.7	33.4	25.7	20.6	15.2	11.2	8.1	919
Grade 5	28.5	71.5	68.1	60.6	57.1	50.4	44.5	39.3	33.5	29.5	25.8	18.7	11.8	7.7	5.4	3.9	982
Grade 6	33.6	66.4	63.7	57.9	53.9	47.8	43.0	39.0	34.4	29.9	26.1	19.4	13.7	10.2	7.1	5.5	1172

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 13: 1976-77 Gain* Distributions in Reading Vocabulary for Matched Non-EOC Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	8.2	91.8	85.7	78.0	69.5	61.7	53.7	46.3	46.3	39.8	35.0	29.4	25.4	18.4	12.4	7.9	1496
Grade 2	18.5	81.5	76.8	72.5	67.6	63.1	58.0	51.3	45.4	40.3	37.0	26.3	18.1	10.2	6.0	3.7	1280
Grade 3	24.4	75.6	73.2	67.5	64.1	57.5	52.5	46.9	42.9	37.7	32.6	23.8	15.9	10.9	6.8	3.7	1227
Grade 4	31.0	69.0	68.0	61.0	59.5	54.8	50.2	45.9	40.7	36.9	30.7	22.9	17.6	12.4	9.7	6.9	1094
Grade 5	32.6	67.4	65.1	59.3	55.2	49.6	44.2	39.6	36.5	32.7	28.6	21.7	15.7	11.3	8.4	6.0	1182
Grade 6	32.1	67.9	65.2	60.0	55.9	50.7	46.3	42.9	37.2	33.9	30.2	23.7	19.0	14.2	10.7	8.1	1241

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 14: 1976-77 Gain* Distributions in Reading Comprehension for Matched EOC Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	6.7	93.3	90.4	86.8	84.8	80.0	76.3	68.3	62.9	50.4	45.4	32.7	24.2	18.1	14.8	11.1	979
Grade 2	17.3	82.7	79.4	75.8	72.2	66.2	60.6	55.2	50.5	46.9	42.4	33.9	25.6	17.6	11.5	7.6	819
Grade 3	18.4	81.6	76.5	70.0	63.9	56.8	50.1	42.3	34.9	28.5	23.2	14.5	7.8	4.3	2.2	1.8	773
Grade 4	32.4	67.6	64.7	59.6	55.2	52.3	48.3	43.0	38.9	34.7	29.7	25.0	19.0	14.3	10.8	8.7	920
Grade 5	30.2	69.8	66.7	61.2	55.1	49.2	44.7	38.6	33.6	30.1	25.6	18.7	12.9	7.5	4.9	2.9	984
Grade 6	35.6	64.4	60.2	55.5	50.2	45.9	41.8	36.3	31.1	26.9	22.0	16.5	11.1	8.6	5.1	2.9	1167

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

Table 15: 1976-77 Gain* Distributions in Reading Comprehension for Matched Non-EOC Students

	0.0 or less	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
Grade 1	6.5	93.5	90.7	86.6	84.3	79.2	76.8	69.9	66.1	55.2	49.6	34.3	27.6	20.5	16.3	11.7	1481
Grade 2	22.3	77.7	74.4	69.7	64.7	59.3	54.1	49.7	44.7	39.7	35.0	26.8	20.3	14.1	9.4	6.2	1274
Grade 3	21.8	78.2	72.8	66.5	61.2	55.0	48.3	41.7	35.8	30.6	26.0	18.3	11.8	6.8	4.0	2.7	1230
Grade 4	29.7	70.3	66.8	62.4	56.8	52.4	48.4	44.3	41.0	36.9	33.1	25.9	20.4	15.0	10.7	6.6	1098
Grade 5	31.5	68.5	64.5	59.0	54.7	49.9	44.1	39.3	34.6	30.9	26.7	21.2	15.3	11.5	8.6	6.2	1182
Grade 6	33.0	67.0	63.8	59.8	55.1	51.8	48.1	43.7	39.4	35.4	31.8	24.7	18.7	13.8	10.9	8.2	1250

* Gains above 0.0 are cumulative, i.e., they indicate the percentage of students with gains equal to or larger than the given gain. Gains at Grade 1 are determined by arbitrarily assigning a pretest score of .6.

students in this subpopulation (hereafter referred to as the matched students) for vocabulary and comprehension are presented in Tables 6 and 7, respectively. The results in grades 4 through 6 for vocabulary are essentially similar to those reported for the total TARP population although they are lower overall. Similar results were obtained for comprehension. Hence, the results obtained from the matched population indicate the same trend of increased pretest to posttest achievement gains in 1976-77 in grades 4 through 6. (The results from the analysis of covariance reported in question 8 below indicate that mean achievement is still far below the national norm at all grade levels, implying that, although gains increased, TARP students are still seriously disadvantaged educationally at all grades.) To determine if the results obtained from the matched population were identical in East Oak Cliff (EOC) and non-East Oak Cliff (Non-EOC) schools, the matched groups for 1975-76 and 1976-77 were divided into students in EOC and students in Non-EOC schools. Results were then computed for each of these four groups. The gain distributions are presented in Tables 8-15. They include vocabulary and comprehension results for each group for each year. Inspection of the data in Tables 8-15 indicates that in vocabulary, EOC students in 1975-76 were equal to or exceeded Non-EOC students in grades 1-5. In 1976-77 EOC students gain the same or more in grades 1-4 but less in grades 5 and 6. In comprehension, results favor EOC or show no difference in 1975-76. In 1976-77 results favor EOC in grades 2 and 3 and Non-EOC in grades 1 and 4-6. (Again, these results must be considered in light of the analysis of covariance results presented below in question 8).

The evaluation of the kindergarten objectives indicated that 77.3% of K students showed a gain of at least 5 percentile points, which was interpreted as significant gain. In addition, 70.9% of K students scored at or above a raw score of 40 on the MRT and 31.9% scored at or above 60. All these results indicate excellent achievement of objectives for K students.

8. The analysis of differences in TARP programs used the analysis of covariance to determine the extent of relative variation in the overall achievement levels of participants in the programs. For each of these analyses the appropriate pretest score, MRT composite for grade 1 and the corresponding ITBS subtest for grades 2 through 6, was the covariate and the posttest ITBS subtest score was the dependent variable. For purposes of reference, the overall mean levels of performance for all TARP students are presented in Tables

16 and 17 for reading vocabulary and reading comprehension, respectively. Inspection of the data in these tables indicates that Title I students show achievement patterns with increasing deficits as measured against national norm groups. The deficit is small in the first two grades and becomes increasingly larger until, in grade 6, students are approximately two and one-third years below grade level. The results of the analysis of covariance for the comparison of the TARP programs are presented in Tables 18 and 19 for vocabulary and comprehension, respectively. (For these result tables only adjusted means, sample sizes, adjusted mean square error, and F values are reported. For the interested reader all other supporting statistics are on file in the technical documentation for this report in the archives of the Department of Research, Evaluation, and Information Systems.) All results for the analyses of covariance are based on non-chance scores; hence, the sample sizes for these analyses are considerably smaller than those for the full Title I population due to the large percentage of chance scores in the testing program. Inspection of the results in Tables 10 and 11 indicates that although some of the differences are statistically significant, there is little practical difference among the adjusted means. Therefore, the programs which show the most effect in mean performance, such as Hoffman at grade 1 in comprehension or BRL and SWRL at grade 3 in vocabulary, would be expected to be only slightly more effective, if at all, in the areas measured by these subtests. (To see if the addition of the chance scores made any significant differences in the results reported in these tables, analyses of the full TARP program populations were made and showed no variation from these results which would change the overall practical results of the non-chance analyses. These additional analyses are included in the technical documentation for this report.) To determine if the possible changes in the Title I population for the 1976-77 school year had any overt effect on the results indicated for the total population, analyses were made for the matched population discussed in question 7. The results [illegible] these analyses are presented in Tables 12 and 13 for vocabulary and comprehension, respectively. Although there are slight differences in the relative positions of the means for each group, there is no practical difference from the results reported for the total group. Since the gains analysis reported in question 7 indicated possible differences for scores at grades 4 to 6, analyses of covariance were made for EOC and Non-EOC schools. Results for these analyses for total groups are presented in Tables 22

and 23 for vocabulary and comprehension, respectively, and for matched groups in Tables 24 and 25 for vocabulary and comprehension, respectively. Comparison of total group and matched group results indicates that both EOC and Non-EOC schools show somewhat higher results for the total group in grades 4 through 6, indicating that both populations changed somewhat from 1975-76 to 1976-77 and that this change resulted in slightly higher scores for both groups this year. The analysis of the matched group results indicates that there is no practical difference in mean results for EOC and Non-EOC schools in grades 4 through 6. Only two results are statistically significant, EOC being slightly higher on vocabulary in grade 4 and Non-EOC being slightly higher on comprehension in grade 6. Hence, the analysis of the EOC and Non-EOC results indicate that both populations show small increases from 1975-76 to 1976-77 and matched samples show no important differences between groups in grades 4 through 6.

Table 16: Mean ITBS Grade Equivalent Scores
for Total TARP Population in 1976-77

Subtest: Reading Vocabulary

Grade		Pretest	Posttest
1*	Mean:	44.06	1.46
	SD:	14.57	.71
	N:	4343	4406
2	Mean:	1.20	1.96
	SD:	0.56	0.82
	N:	3716	3810
3	Mean:	1.96	2.61
	SD:	0.79	0.98
	N:	3749	3575
4	Mean:	2.62	3.27
	SD:	.98	1.13
	N:	4638	4791
5	Mean:	3.26	3.81
	SD:	1.19	1.29
	N:	4887	4892
6	Mean:	3.94	4.51
	SD:	1.40	1.58
	N:	5295	5383

*Grade 1 pretest is MRT total battery raw score

Table 17: Mean ITBS Scores for Total TARP Population in 1976-77

Subtest: Reading Comprehension

Grade		Pretest	Posttest
1*	Mean:	44.06	1.61
	SD:	14.57	0.72
	N:	4343	4389
2	Mean:	1.39	2.21
	SD:	0.55	0.88
	N:	3695	3809
3	Mean:	1.92	2.51
	SD:	0.58	0.88
	N:	3747	3584
4	Mean:	2.65	3.32
	SD:	0.88	1.15
	N:	4630	4795
5	Mean:	3.28	3.84
	SD:	1.09	1.29
	N:	4880	4895
6	Mean:	3.93	4.53
	SD:	1.23	1.43
	N:	5305	5382

*Grade 1 pretest is MRT total battery raw score

Table 18: Comparison of TARP Program Adjusted Mean Grade Equivalents for Total Data Reading Vocabulary Scores

Grade	Adjusted Mean Hoffman	N	Adjusted Mean BRL	N	Adjusted Mean SWRL	N	Adjusted Mean Square Error	F Value
1	1.78	623	1.73	999	1.71	1075	.31	2.69
2	2.23	400	2.27	724	2.26	742	.35	0.57
3	2.87	486	2.98	729	3.02	807	.45	8.16**
4	3.97	94	3.95	408	3.93	1322	.43	0.25
5	4.51	121	4.31	582	4.36	1916	.40	5.44**
6	5.27	195	5.12	710	5.09	2159	.64	4.61**

** $p<0.01$

Table 19: Comparison of TARP Program Adjusted Mean Grade Equivalents for Total Data Reading Comprehension Scores

Grade	Adjusted Mean Hoffman	N	Adjusted Mean BRL	N	Adjusted Mean SWRL	N	Adjusted Mean Square Error	F Value
1	1.89	757	1.74	1146	1.73	1261	.34	20.87**
2	2.18	641	2.32	971	2.36	1000	.55	12.32**
3	2.58	635	2.64	924	2.64	996	.38	2.60
4	3.88	91	3.90	385	4.01	1175	.55	4.21*
5	4.49	131	4.33	541	4.45	1833	.44	7.85**
6	5.08	167	5.06	646	5.13	1911	.54	2.47

*$p<0.05$ **$p<0.01$

Table 20: Comparison of TARP Program Adjusted Mean Grade Equivalents for Matched Data Reading Vocabulary Scores

Grade	Adjusted Mean Hoffman	N	Adjusted Mean BRL	N	Adjusted Mean SWRL	N	Adjusted Mean Square Error	F Value
1	1.80	519	1.77	608	1.65	482	.32	9.89**
2	2.22	355	2.24	469	2.22	413	.36	0.18
3	2.84	424	2.96	509	2.94	419	.48	4.36*
4	3.86	82	3.76	249	3.71	492	.41	2.08
5	4.28	100	4.10	372	4.06	773	.37	5.61*
6	4.93	175	4.82	472	4.69	933	.62	9.49**

$^*p<0.05$ $^{**}p<0.01$

Table 21: Comparison of TARP Program Adjusted Means for Matched Data Reading Comprehension Scores

Grade	Adjusted Mean Hoffman	N	Adjusted Mean BRL	N	Adjusted Mean SWRL	N	Adjusted Mean Square Error	F Value
1	1.91	615	1.77	686	1.66	597	.35	27.46**
2	2.18	559	2.29	640	2.30	584	.54	5.18**
3	2.55	553	2.61	645	2.56	538	.37	1.83
4	3.80	82	3.74	252	3.83	465	.53	1.39
5	4.38	111	4.13	347	4.20	745	.37	6.79**
6	4.91	151	4.84	439	4.81	851	.46	1.44

$^{**}p<0.01$

Table 22: Comparison of EOC and Non-EOC Adjusted Means for Total Data Reading Vocabulary Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean Non-EOC	N	Adjusted Mean Square Error	F Value
1	1.71	1020	1.75	1679	.31	2.67
2	2.43	879	2.43	1492	.32	0.06
3	3.17	848	3.10	1464	.47	6.30*
4	4.09	597	4.09	1508	.43	0.00
5	4.50	866	4.61	2105	.41	17.09**
6	5.29	1090	5.40	2366	.62	14.39**

*$p<0.05$
**$P<0.01$

Table 23: Comparison of EOC and Non-EOC Adjusted Means for Total Data Reading Comprehension Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean Non-EOC	N	Adjusted Mean Square Error	F Value
1	1.73	1155	1.80	2011	.34	12.11**
2	2.55	1117	2.46	2014	.51	12.26**
3	2.74	1037	2.78	1808	.38	2.53
4	4.05	595	4.21	1336	.53	19.84**
5	4.56	835	4.70	2023	.44	24.88**
6	5.23	1007	5.45	2108	.55	56.21**

**$p<0.01$

Table 24: Comparison of EOC and Non-EOC
Adjusted Means for Matched Data
Reading Vocabulary Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean Non-EOC	N	Adjusted Mean Square Error	F Value
1	1.83	820	1.86	1046	.33	1.31
2	2.50	740	2.52	1010	.32	0.82
3	3.19	692	3.10	934	.50	6.69**
4	3.95	489	3.86	455	.41	4.66*
5	4.28	695	4.28	667	.38	.05
6	4.88	861	4.87	799	.63	.03

*p<0.05
**p<0.01

Table 25: Comparison of EOC and Non-EOC
Adjusted Means for Matched Data
Reading Comprehension Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean Non-EOC	N	Adjusted Mean Square Error	F Value
1	1.84	899	1.94	1254	.40	12.87**
2	2.64	919	2.52	1390	.48	15.26**
3	2.77	827	2.79	1183	.36	.63
4	3.97	490	4.00	431	.53	.29
5	4.40	670	4.40	651	.37	.04
6	4.90	807	5.01	713	.46	11.14**

**p<0.01

Additional Information:

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72-67 Evaluation of TARP, 1973, Robert J. Costello, 115 pages.

Abstract

1976-77 Evaluation of the Targeted Achievement in Mathematics Program

Evaluators: Cordelia R. Alexander
Robert L. Mendro

Objectives of the Program: The Targeted Achievement in Mathematics Program (TAMP) was intended to reduce mathematics deficiencies by providing supplemental instruction in basic computational and problem-solving skills. It was also expected that TAMP would improve motivation toward mathematics and provide resources and stimuli to enhance self-concept.

TAMP was implemented in the form of three mathematics systems: Direct Instructional System for Teaching and Remediation (DISTAR), Science Research Association/Mathematical Learning Systems (SRA), or Southwest Regional Laboratory/Learning Mastery System (SWRL). The performance objectives that follow relate to the use of either of the three reading systems correlated to the basal program. Upon completion of the 1976-77 school year by eligible Title I students using TAMP: (1) all kindergarten students will demonstrate an educationally significant gain on the Metropolitan Readiness Test (MRT) administered as a pre- and posttest, (2) 50% and 20% of the kindergarten students will indicate a raw score of 40 or above and 60 or above, respectively, on the MRT administered as a posttest, and (3) students in grades 1-6 will demonstrate reading gains at the percentages and at the gain rates designated in Table 1 for each month of instruction as measured by the mathematics subsection of the Iowa Tests of Basic Skills administered as a pre- and posttest.

Purpose of the Evaluation: The process evaluation of TAMP was designed to provide interim information to TAMP management in order to assess the program's implementation process with special attention directed toward the effect of the newly created instructional coordination and resource services component of Title I. In a more specific sense, the process evaluation aspect of TAMP was aimed at the determination of the program's operational needs, goal attainment, and the success of the instructional strategies used. It was also a year-end intention that meaningful relationships between product achievement results and process information would be specified. The purpose of the product evaluation of the TAMP program was to determine if program goals were met and if different TAMP programs had different effects on achievement.

Sample: Standardized achievement tests results were based on all students from the TAMP population in grades K-6 with testing information available on the Title I data base. Approximately 7% or 118 of all the TAMP classes were observed across 60% of the Title I schools during the fall and spring process evaluation periods. Consequently slightly less than 8% of the TARP teachers were interviewed in the schools which were selected according to Dallas ISD sub-district, TAMP reading system, and grade level. In addition, all 83 instructional resource teachers and 20 mathematics demonstration teachers were surveyed during each process evaluation. Some parents of TAMP students were interviewed during Title I workshops.

Evaluation Design: All process evaluation data were collected by the evaluators during two periods of the school year: (a) November 11 through December 1, 1976, and (b) February 14 through April 22, 1977. The instrument used for classroom assessment was the Title I Classroom Observation Checklist-Teacher Interview; this instrument was intended to examine the extent of program implementation, the degree of individualization of instruction, the use of classroom management skills, and the type of teacher-student interactions. In addition, all instructional resource teachers and mathematics demonstration teachers assigned to Title I schools were asked to respond to the Title I Instructional Personnel Survey during December and May. The TAMP start-up dates and other information related to personnel, student attendance, and program placement were collected from each Title I school by Title I data technicians. All process data were tabulated and percentages were determined when appropriate. Due to possible fundamental changes in the makeup of the Title I student population resulting from the desegration order, product evaluations considered two populations of students: (1) all students who participated in TAMP programs during the 1976-77 school year and (2) all students who participated in Title I programs in 1975-76 and who participated in TAMP programs in 1976-77. The second group is a subset of the first and allows an accurate comparison of TAMP programs in 1976-77 to objectives based on student populations in 1975-76. The product evaluation was in two parts: an analysis of the achievement gains of TAMP students relative to the gain objectives based on 1975-76 student achievement and an analysis of differential effects of TAMP programs utilizing the analysis of covariance with pretest score as the covariate and posttest score as the dependent variable. The covariance analysis considered only students with scores above a chance level since recent Title I testing reports indicate that significant proportions of the students in the district score at a chance level.

The major evaluation question analyzed were:

1. Was the Targeted Achievement in Mathematics Program (TAMP) implemented as proposed?

2. What were the characteristics of TAMP and its participants?

Table 1: Percentages
in Mat

	0.0 or less	.1	.2	.3	.4	.5	.6
Grade 1	4	96	95	88	84	74	71
Grade 2	14	86	83	74	69	59	52
Grade 3	17	83	79	72	67	58	53
Grade 4	26	74	70	62	57	49	44
Grade 5	29	71	66	57	51	44	38
Grade 6	29	71	66	58	54	45	41

* Gains above 0.0 are cumulative, i.e., they i
equal to or larger than the given gain. Gai
assigning a pretest score of .6.

of Gain* for Grades 1-6
hematics

.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
1	58	50	46	35	25	18	12	8	
1	35	27	22	13	7	4	3	2	
3	37	29	25	16	10	6	4	2	
35	30	24	20	12	8	4	3	2	
31	27	21	18	12	7	4	3	2	
34	30	24	20	13	8	5	3	2	

ndicate the percentage of students with gains
ns at Grade 1 are determined by arbitrarily

3. What services were rendered to TAMP students by the team of resource and demonstration teachers?

4. What were the differences in the instructional processes of the three TAMP programs?

5. To what extent did TAMP supplement the basal curriculum?

6. To what extent were the mathematics achievement goals of TAMP met?

7. Did TAMP programs differ significantly in pre-post gain trends as measured by standardized tests.

8. What were the resulting costs of TAMP?

Evaluation Results: The following results refer to the previously listed evaluation questions by number.

1,2. The TAMP program affected over 35,000 eligible Title I students, and it was implemented as proposed in grade levels K-6. The DISTAR program served 14 Title I schools, SRA was assigned to 29 Title I schools, and 43 schools received SWRL. The start-up dates for the TAMP systems varied between the months of September and October, 1976 according to school and classroom teacher. Table 2 summarizes the usual month of start-up dates and TAMP program configuration by sub-district.

Table 2: TAMP Configuration and Start-Up Months

Number of Title I Schools by Sub-District		Number of Schools by Program			Number of Demonstration Teachers	Number of Teacher Aides		Months of Most Start Dates
		DISTAR	SRA	SWRL		TAMP	Kindergarten	
Northwest	27	5	9	13	3	6	22	Sept. Oct.
Northeast	16	6	5	5	0	0	10	Sept.
Southwest	13	1	4	8	1	3	15	Oct.
Southeast	13	1	5	7	1	3	9	Oct.
East Oak Cliff	17	1	6	10	15*	19	25	Sept.
TOTAL	86	14	29	43	17	31	81	

*Three of these positions were vacant as of May, 1977.

In August, 1976 an instructional resource teacher (IRT) was assigned to each of the 86 Title I schools to coordinate the Title I program under the direction of the individual school principals. Ten IRTs were each assigned to two schools which meant that 20 Title I schools had half-time support of an IRT. Demonstration teachers (Demos) were assigned according to school population, the TAMP system used, and other special mathematical needs relative to the school. As of February 7, 1977, the number of IRTs was increased by assigning new personnel and reassigning old personnel who formerly served half-time in two schools. These reassignments left three IRTs serving half-time in two schools at the end of this school year.

Title I students were placed in TAMP according to below grade level mathematics scores on the Iowa Tests of Basic Skills (ITBS) administered in the spring, 1976. Additional eligible students were assigned to TAMP as late as November, 1976, according to the fall ITBS results; the Shaw-Hiehle test was also used to determine placement within TAMP.

3. Approximately 80% of the instructional resource teachers (IRT) and 50% of the mathematics demonstration teachers (Demos) responded to the Title I Instructional Personnel Survey over both process evaluation periods. At least 50% of the IRT indicated the highest incidence of involvement in the following activities as projected in the Title I proposal: (1) diagnosing student needs, (2) integrating supplemental instruction and the total curriculum (basal), (3) working with Title I program coordinators to insure availability of materials and correct program implementation, (4) monitoring supplemental classes, and (5) coordinating both supplemental reading and math.

These areas of concern were reported by IRT to have affected the fall start-up dates of TAMP most often: (1) school staff's familiarity with program, (2) personnel assignments, (3) eligibility determination, (4) arrival of program materials, and (5) teacher training. Approximately 25% of the IRTs indicated that their most pressing job-related problem was the amount of record keeping involved in Title I. Other problems frequently related were: (1) placement of transferred students, (2) lack of time to work with individual students, and (3) lack of teacher program development.

Most mathematics demonstration teachers (Demos) served between five and twelve or more classes each day. According to Demos, fall TAMP start-up dates were affected frequently by eligibility determination and personnel assignments. Demos indicated that their most pressing job-related problem was the need for additional teacher aides in TAMP.

4. SRA and SWRL: Students were assigned to groups according to the assessment of skills from the Shaw-Hiehle test on other placement aide. There was some grouping across all class sections within a grade level in which team-teaching was employed. Teachers complained of the difficulty of these programs' content and used a preponderance of below grade level class materials particularly in grades 3-6.

   DISTAR: DISTAR was used at grades K-3 where there were usually three sub-groups of students based on skill development in each class. The negative reactions to DISTAR were based on the symbolism and repetitious teaching methods characteristic of the program. Few teacher aides were observed in TAMP classes.

5. TAMP was designed to be taught at least 20 minutes each day; the actual teaching time of TAMP was reported to be 20 to 30 minutes a day or 1 to 3 hours a week. Instructional time devoted to the basal was almost equal to the instructional time of TAMP. Through the Dallas ISD mathematics department, each TAMP teacher was provided baseline worksheets which listed grade-level mastery objectives and suggested steps to reach the objectives. A management system was also implemented to document the extent that individual students mastered the objectives related to a student's initial placement.

6. The results for the total TAMP population in 1976-77 for mathematics total are presented in Table 3. Inspection of the data in Table 3 in conjunction with the objectives in Table 1 indicates that the grade 1 results were below all objectives, indicating only partial achievement of objectives. In grade 2, results were above most objectives and only slightly below others indicating excellent achievement of objectives. In grades 3, all results were below or well below objectives, indicating poor achievement of the objectives. In grades 4 through 6 all results exceeded objectives indicating excellent achievement. Since the Title I population at grades 4 through 6 possibly had changed fundamentally due to the implementation of the desegration order, a separate sub-population of Title I students for 1976-77 who were also in Title I programs in 1975-76 was examined. To insure the comparability of this group to the 1975-76 total population, their gains in 1975-76 were compared to the total gains in 1975-76. The results of this comparison indicated virtually no difference in gains for the total population and the subpopulation on either test. The results for the TAMP students in this subpopulation (hereafter referred to as the matched students) are presented in Table 4. The results

Table 3: 1976-77 Gain Distribut
for all TAMP

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	4.3	95.7	94.2	86.6	83.9	73.3	69.4	58.6
Grade 2	13.0	87.0	83.5	75.9	70.5	60.9	54.3	42.8
Grade 3	20.3	79.7	75.8	67.1	61.8	52.6	47.3	37.2
Grade 4	25.1	74.9	70.9	63.9	59.1	51.4	47.0	40.0
Grade 5	25.9	74.1	69.7	62.7	58.2	50.1	45.4	38.4
Grade 6	28.2	71.8	68.6	62.6	57.8	50.9	46.5	39.9

* Gains above 0.0 are cumulative, i.e., they indic
equal to or larger than the given gain. Gains a
assigning a pretest score of .6.

tions in Mathematics Total
Students

.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
55.2	45.8	42.3	30.1	19.7	12.6	7.2	4.4	4336
37.0	27.1	22.5	11.1	5.7	2.5	1.1	0.6	3441
32.7	24.1	20.8	12.8	7.3	4.2	2.8	1.9	3051
36.3	29.1	25.3	16.3	10.6	6.8	4.0	2.7	3889
34.3	28.0	24.4	16.8	11.5	7.5	4.9	3.1	4293
35.7	30.2	26.8	19.2	13.5	9.2	6.3	3.9	4749

ate the percentage of students with gains
t Grade 1 are determined by arbitrarily

in grades 4 through 6 are essentially similar to those reported for the total TAMP population although they are lower overall. Hence, the results obtained from the matched population indicate the same trend of increased pretest to posttest achievement gains in 1976-77 in grades 4 through 6. (The results from the analysis of covariance reported in question 7 below indicate that mean achievement is still far below the national norm at all grade levels, implying that although gains increased, TAMP students are still seriously disadvantaged educationally at all grades.) To determine if the results obtained from the matched population were identical in East Oak Cliff (EOC) and non-East Oak Cliff (Non-EOC) schools, the matched groups for 1975-76 and 1976-77 were divided into students in EOC and students in Non-EOC schools. Results were then computed for each of these four groups. The gain distributions are presented in Tables 5-8. They present mathematics total results for each group for each year. Inspection of the data in Tables 5-8 indicates that Non-EOC students in 1975-76 slightly exceeded or exceeded EOC students in grades 1-3. Results are approximately the same in grades 4 and 5. In 1976-77 EOC students gained the same or more in grades 1-3 but less in grades 4 through 6. (Again, these results must be considered in light of the analysis of covariance results presented below in question 7).

The evaluation of the Kindergarten objectives indicated that 77.3% of K students showed a gain of at least 5 percentile points, which was interpreted as significant gain. In addition, 70.9% of K students scored at or above a raw score of 40 on the MRT and 31.9% scored at or above 60. All these results indicate excellent achievement of objectives for K students.

7. The analysis of differences in TAMP programs used the analysis of covariance to determine the extent of relative variation in the overall achievement levels of participants in the programs. For this analysis, the appropriate pretest score, MRT composite for grade 1 and the ITBS subtest for grades 2 through 6, was the covariate and the posttest ITBS score was the dependent variable. For appropriate reference, the overall mean levels of performance in mathematics total TAMP students are presented in Table 9.

   Inspection of the data in this table indicates that Title I students show achievement patterns with increasing deficits as measured against national norm groups. The deficit is small in the first two grades and becomes increasingly larger

Table 4: 1976-77 Gain Distribut
for all Matched Grou

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	4.0	96.0	94.4	87.4	84.7	73.7	69.5	58.4
Grade 2	13.1	86.9	82.9	74.9	69.4	59.2	53.1	41.6
Grade 3	21.5	78.5	74.6	65.5	60.3	50.7	45.2	35.4
Grade 4	28.2	71.8	74.6	65.5	60.5	50.7	45.2	35.4
Grade 5	27.6	71.8	67.2	60.5	55.8	47.7	43.2	35.8
Grade 6	29.8	70.2	67.1	60.5	55.2	46.9	43.0	36.0

* Gains above 0.0 are cumulative, i.e., they indi
equal to or larger than the given gain. Gains
assigning a pretest score of .6.

tions in Mathematics Total
p TAMP Students

.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
54.9	45.4	41.8	29.6	19.5	12.5	7.2	2.2	2435
36.1	26.3	22.1	11.0	5.5	2.8	1.3	0.8	2247
30.9	22.8	19.8	11.7	6.3	3.2	2.2	1.6	2092
30.9	22.8	19.8	13.4	8.4	5.2	2.9	2.0	1985
32.3	25.2	21.9	14.3	9.5	6.0	3.8	2.2	2184
31.6	26.3	23.3	16.1	11.0	7.2	5.0	3.1	2420

cate the percentage of students with gains
at Grade 1 are determined by arbitrarily

Table 5: 1975-76 Gain* Distr
for Match NON-EO

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	4.1	95.9	94.4	87.6	84.9	74.2	71.2	58.2
Grade 2	16.4	83.6	80.0	70.9	65.8	56.0	49.1	38.7
Grade 3	18.5	81.5	76.9	69.7	65.1	56.4	52.2	41.5
Grade 4	29.1	70.9	67.3	59.2	53.4	46.4	41.9	33.7
Grade 5	33.1	66.9	62.1	54.0	48.7	42.5	37.2	29.9
Grade 6								

* Gains above 0.0 are cumulative, i.e., they ind
equal to or larger than the given gain. Gains
assigning a pretest score of .6.

ibutions in Mathematics Total
C Students

.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
50.4	50.4	46.7	35.2	26.1	18.5	11.9	7.7	1633
33.5	25.9	21.6	13.1	7.6	4.1	2.7	1.5	1423
34.8	27.0	23.1	15.1	9.4	5.6	3.5	2.1	1040
28.7	21.5	18.0	10.8	6.5	3.7	2.1	1.1	1247
25.8	19.5	16.5	10.9	7.6	4.5	3.0	2.5	1313

icate the percentage of students with gains
at Grade 1 are determined by arbitrarily

Table 6: 1975-76 Gain* Distri
for Matched EOC S

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	5.3	94.7	92.3	83.7	79.0	69.6	65.3	54.9
Grade 2	13.4	86.6	82.4	73.8	67.7	57.2	50.1	38.3
Grade 3	21.2	78.8	74.1	66.1	61.0	50.1	45.7	36.0
Grade 4	27.8	72.2	68.6	61.8	55.7	46.4	41.2	32.6
Grade 5	30.3	69.7	64.2	55.1	49.3	41.3	36.3	29.1
Grade 6								

* Gains above 0.0 are cumulative, i.e., they ind
equal to or larger than the giver gain. Gains
assigning a pretest score of .6.

utions in Mathematics Total
udents

.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
51.7	44.0	40.5	30.6	20.9	13.7	8.9	5.4	1103
32.9	24.1	19.5	10.0	4.4	1.3	0.7	0.5	1085
32.0	24.2	19.5	10.6	5.8	2.8	0.8	0.2	865
28.4	21.8	17.6	9.9	5.9	3.1	1.7	0.8	1105
25.0	18.9	16.3	10.7	5.5	2.9	1.4	1.0	1252

icate the percentage of students with gains
at Grade 1 are determined by arbitrarily

Table 7: 1976-77 Gain* Dis
for Matched NO

	0.0 or less	.1	.2	.3	.4	.5	.6
Grade 1	4.4	95.6	94.1	87.2	84.3	72.2	68.3
Grade 2	15.1	84.9	81.2	71.7	66.0	55.2	49.1
Grade 3	21.7	78.3	74.0	65.5	60.2	51.0	45.1
Grade 4	26.7	73.3	69.3	63.3	59.2	50.9	46.2
Grade 5	27.3	72.7	67.4	61.2	55.9	49.9	44.5
Grade 6	29.0	71.0	68.0	61.1	56.7	49.0	45.5

* Gains above 0.0 are cumulative, i.e., they
equal to or larger than the given gain. Ga
assigning a pretest score of .6.

tributions in Mathematics Total
N-EOC Students

.7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
57.0	53.4	43.3	39.9	28.1	18.1	11.7	7.0	4.3	1473
38.1	32.5	23.9	20.3	9.1	4.3	1.9	0.9	0.6	1345
36.1	31.1	22.9	20.1	12.4	7.1	4.0	2.5	2.0	1256
38.9	35.2	28.2	25.0	15.3	10.1	6.0	3.1	2.1	1063
38.4	33.9	27.8	24.9	17.3	11.9	8.1	5.4	3.3	1187
39.7	35.3	29.7	27.4	19.9	14.4	10.0	7.2	4.5	1233

indicate the percentage of students with gains
ins at Grade 1 are determined by arbitrarily

Table 8: 1976-77 Gain* Distrib
for Matched EOC St

	0.0 or less	.1	.2	.3	.4	.5	.6	.7
Grade 1	3.3	96.7	94.8	87.8	85.3	76.0	71.4	60.
Grade 2	10.2	89.8	85.5	79.7	74.4	65.2	59.1	46.
Grade 3	21.1	78.9	75.6	65.4	60.5	50.1	45.3	34.
Grade 4	29.8	70.2	64.8	57.3	51.8	43.9	39.7	32.
Grade 5	27.9	72.1	67.1	59.7	54.6	45.5	40.3	43.
Grade 6	30.6	69.4	66.2	60.0	53.7	44.7	40.4	32.

* Gains above 0.0 are cumulative, i.e., they ind
equal to or larger than the given gain. Gains
assigning a pretest score of .6.

butions in Mathematics Total
tudents

7	.8	.9	1.0	1.2	1.4	1.6	1.8	2.0	N
6	57.1	48.5	44.9	31.8	21.7	13.7	7.6	4.7	962
9	41.5	29.7	24.7	13.7	7.2	4.0	2.0	1.0	902
3	30.5	22.5	19.3	10.6	5.0	2.0	1.8	1.1	836
3	29.1	21.8	18.3	11.2	6.5	4.3	2.7	1.8	922
3	27.8	22.0	18.5	10.8	6.6	3.6	1.9	0.8	997
1	27.8	22.7	19.1	12.2	7.4	4.4	2.7	1.7	1187

dicate the percentage of students with gains
s at Grade 1 are determined by arbitrarily

TABLE 9: MEAN ITBS SCORES FOR Total TAMP Population IN 1976-77

	SUBTEST:	Mathematics Total	
GRADE		Pretest	Posttest
1*	MEAN:	43.89	1.47
	SD:	14.41	0.56
	N:	4321	4339
2	MEAN:	1.39	1.99
	SD:	0.45	0.61
	N:	4038	4112
3	MEAN:	2.14	2.66
	SD:	0.56	0.74
	N:	3921	3718
4	MEAN:	2.76	3.31
	SD:	0.73	0.95
	N:	4700	4813
5	MEAN:	3.37	3.91
	SD:	0.99	1.15
	N:	5137	5086
6	MEAN:	4.18	4.71
	SD:	1.08	1.33
	N:	5578	5617

*Grade 1 pretest is MRT total battery raw score

Table 10: Comparison of TAMP
for Total Data Mathematic

Grade	Adjusted Mean SWRL	N	Adjusted Mean DISTAR	N
1	1.53	1650	1.47	834
2	2.04	1571	1.90	745
3	2.74	1419	2.64	634
4	3.73	1311	-	-
5	4.28	1973	-	-
6	5.20	1921	-	-

*p < 0.05   **p < 0.01

Table 11: Comparison of TAMP
for Matched Data Mathemat

Grade	Adjusted Mean SWRL	N	Adjusted Mean DISTAR	N
1	1.53	933	1.48	677
2	2.03	986	1.90	646
3	2.69	939	2.62	566
4	3.60	663	-	-
5	4.08	975	-	-
6	4.87	933	-	-

*p < 0.05   **p < 0.01

rogram Adjusted Means
Total Scores

Adjusted Mean SRA	N	Adjusted Mean Square	F Value
1.53	964	.22	5.10**
2.06	968	.21	29.45**
2.72	825	.32	6.73**
3.70	839	.32	1.34
4.20	1069	.39	11.66**
5.14	1093	.49	5.96*

rogram Adjusted Means
cs Total Scores

Adjusted Mean SRA	N	Adjusted Mean Square	F Value
1.51	469	.22	2.24
2.08	522	.22	2.39
2.72	464	.31	4.39*
3.52	352	.28	5.33*
3.93	453	.31	22.95**
4.80	527	.42	3.93*

Table 12: Comparison of EOC and NON-EOC Adjusted Means for Total Data Mathematics Total Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean NON-EOC	N	Adjusted Mean Square Error	F Value
1	1.50	1266	1.53	2201	.22	2.99
2	2.10	1232	2.03	2248	.21	15.73**
3	2.77	1064	2.76	1936	.32	0.11
4	3.73	700	3.87	1653	.31	27.99**
5	4.21	909	4.36	2250	.39	35.37**
6	5.13	988	5.30	2125	.48	39.23**

**$p < 0.01$

Table 13: Comparison of EOC and NON-EOC Adjusted Means for Matched Data Mathematics Total Scores

Grade	Adjusted Mean EOC	N	Adjusted Mean NON-EOC	N	Adjusted Mean Square Error	F Value
1	1.56	973	1.59	1362	.23	2.63
2	2.17	994	2.09	1497	.21	18.10**
3	2.77	853	2.77	1263	.31	0.09
4	3.66	550	3.74	570	.29	6.76**
5	4.11	726	4.17	775	.32	4.88*
6	4.87	761	4.91	725	.42	1.32

*$p < 0.05$
*$p < 0.01$

until in grade 6, students are approximately two and one-third years below grade level. The results of the analysis of covariance for the comparison of the TAMP programs are presented in Table 10. (For these result tables, only adjusted means, sample sizes, adjusted mean square error, and F values are reported. For the interested reader all other supporting statistics are on file in the technical documentation for this report in the archives of the Department of Research, Evaluation, and Information Systems.) All results for the analyses of covariance are based on non-chance scores; hence, the sample sizes for these analyses are considerably smaller than those for the full Title I population due to the large percentage of chance scores in the testing program. Inspection of the results in Table 10 indicates that although some of the differences are statistically significant, there is little practical difference among the adjusted means. Therefore, the programs which show the most effect in mean performance, such as SWRL and SRA at grade 2 or SWRL at grade 5 would be expected to be only slightly more effective, if at all, in the areas measured by this subtest. (To see if the addition of the chance scores made any significant differences in the results reported in this table, analyses of the full TAMP program populations were made and showed no variation from these results which would chance the over-all practical results of the non-chance analyses. These additional analyses are included in the technical documentation for this report.) To determine if the possible changes in the Title I population for the 1976-77 school year had any overt effect on the results indicated for the total population, analyses were made for the matched population discussed in question 7. The results of these analyses are presented in Table 11. Although there are slight differences in the relative position of the means for each group, there is no practical difference from the results reported for the total group. Since the gains analysis reported in question 6 indicated possible differences for scores at grades 4 to 6, analyses of covariance were made for EOC and Non-EOC schools. Results for these analyses for total groups are presented in Table 12 and for matched groups in Table 13.

Comparison of total group and matched group results indicates that both EOC and Non-EOC schools show somewhat higher results for the total group in grades 4 through 6 indicating that both populations changed somewhat from 1975-76 to 1976-77 at these grades and that this change resulted in slightly higher scores for both groups this year. The analysis of the matched group results indicates that there is no practical difference in mean results for EOC and Non-EOC schools in grades 4 through 6. Only two results are statistically significant, Non-EOC being slightly higher in grades 5 and 6. Hence, the analysis of the EOC and Non-EOC results indicate that both populations show small increases from 1975-76 to 1976-77 and matched samples show no important differences between groups in grades 4 through 6.

Additional Information:

T177-030-9-2 1976-77 Evaluation of the Targeted Achievement in Mathematics Program, 1977, Cordelia R. Alexander, Robert L. Mendro.

76-855 Evaluation of the 1975-76 Targeted Achievement in Mathematics Program, 1976, Deberie L. Gomez, 117 pages.

75-585 Evaluation of the Targeted Achievement in Mathematics Program, 1975, Deberie L. Gomez, Gwen White, 72 pages.

75-584 Process Evaluation Report: Program placement and Implementation for Targeted Achievement in Reading and Mathematics Programs, 1975, Sandra Malone, 136 pages.

Abstract

Evaluation of The Diffusion of Dunbar Developed Programs, 1976-77

Evaluators: Thomas G. Krueck
William W. Salmon, Jr.

Purpose of the Evaluation: This evaluation concerns itself with those Dunbar developed programs which have been deemed most successful and which have been incorporated into the curriculum of other Title I schools. The evaluation attempted to assess the qualities of each of these programs as well as the attitudes of teachers associated with them. The continued refinement of the programs and possible expansion to a larger population were also factors.

Sample: The schools involved in the Dunbar Diffusion study with their respective programs are as follows:

Program	School	Grade
Conceptual Approach to Teaching Science (C.A.T.S.)	Harrell Budd	K & 1, some 2nd
	George W. Carver	K & 1, some 2nd
	City Park	K & 1, some 2nd
	Paul L. Dunbar	K & 1, some 2nd
	Amelia Earhart	K & 1, some 2nd
	Elisha M. Pease	K & 1, some 2nd
	Joseph J. Rhoads	K & 1, some 2nd
	H. S. Thompson	K & 1, some 2nd
	Priscilla Tyler	K & 1, some 2nd
	Sam Houston	K & 1, some 2nd
Conceptually Oriented Musicianship Program (C.O.M.P.)	John H. Brown	K & 1
	Harrell Budd	K & 1
	George W. Carver	K & 1
	B. F. Darrell	K & 1
	Paul L. Dunbar	K & 1
	Amelia Earhart	K & 1
	Elisha M. Pease	K & 1
	John H. Reagan	K & 1
	Erasmo Seguin	K & 1
	H. S. Thompson	K & 1
	Fannie C. Harris	K & 1
	J. N. Ervin	K & 1
	N. W. Harrllee	K & 1
	Maynard Jackson	K & 1
	Marsalis	K & 1
	T. D. Marshall	K & 1
	Robert Thornton	K & 1

Program	School	Grade
Home Economics Learning Program (H.E.L.P.)	Amelia Earhart F. P. Caillet Albert S. Johnston N. W. Harllee	may be implemented across all grades in all schools
Progress Through Piano (P.T.P.)	John Q. Adams Annie W. Blanton Fred Douglass Paul L. Dunbar Nathaniel Hawthorne John Ireland H. S. Thompson W. W. Bushman Roger Q. Mills Dan D. Rogers	by individual students, across grades
Success Through Strings (S.T.S)	John Q. Adams Gabe P. Allen F. P. Caillet David Crockett Paul L. Dunbar Nathaniel Hawthorne Sam Houston John Ireland Herbert Marcus Oran M. Roberts H. S. Thompson James Bonham Dan D. Rogers Annie W. Blanton W. W. Bushman William B. Miller R. L. Thornton Amelia Earhart Stephen Foster William B. Travis Preston Hollow	by individual students, across grades

Evaluation Design: Due to budgeting restraints, a full time assistant evaluator was not available for the Dunbar Programs. Therefore, the Dunbar staff assumed the major responsibility for processing the information used in this evaluation, and it was felt that satisfactory assessment procedures were implemented and the data supplied by program management was proper and correct. The prime role of Research and Evaluation in this case was to consolidate and refine the data from each Dunbar component and insure that proper mathematical and statistical methodologies were being followed. The following questions were analyzed.

1. What are the characteristics of the individual programs, the management system, and program participants?
2. What is the role of the project resource staff and to what extent do teachers utilize their services?
3. How and to what extent are project resource staff utilized?
4. What are the perceptions of the teachers toward the programs and the management systems?
5. Is the project meeting its goals with regards to criterion-referenced tests?
6. What are the costs associated with the programs?

Evaluation Results

1. The characteristics of the Dunbar programs are summarized below.

Conceptual Approach to Teaching Science (C.A.T.S.)-

an elementary science program designed to teach science processes through proven scientific concepts.

Success Through Strings (S.T.S.) -

an elementary strings program based on the structure and philosophy of Shinichi Suzuki. The concepts of comprehensive musicianship are still a functional part of the program.

Conceptually Oriented Musicianship Program (C.O.M.P.) -

a classroom music program based on the philosophy of comprehensive musicianship. At the primary levels the program is designed for implementation by teachers in self-contained classroom.

Progress Through Piano (P.T.P.) -

a systematic group piano program based on the concepts of comprehensive musicianship.

Home Economics Learning Program (H.E.L.P.) -

a program designed to meet the needs of students and their parents. Concentrated in the 5th and 6th grades, HELP provides a media for educating students and parents for a better home life and usable skills.

Management System -

Although the Management System is not a program in itself, it does coordinate and organize Dunbar-disseminated programs at specific school sites. The Management System utilizes a condensed uniform curriculum for overlapping content allowing Dunbar programs to be implemented in a shorter time span.

These programs were developed and refined by the Dunbar staff and were designed to enhance the educational process of a specific stratum of students. By definition eligible students are those who are considered culturally different and/or economically or socially deprived. In some instances family members were accorded the benefit of some of these programs in conjunction with the students, under the same guidelines.

2&3. The role of the Dunbar staff was multifarious and ongoing during the course of the academic year. The resource staff was responsible for the design, dissemination, collection and compilation of instructional materials, criterion-referenced tests and supplemental documentation. Over the course of the school year the rescurce staff came in contact with the classroom teachers on numerous occasions, predominately through staff development sessions. Through the interchange of information at these sessions teachers received the latest information regarding their individual programs and the Dunbar staff were made aware of any problems in the classroom. However, the Dunbar staff was never far removed from the classroom situation. Through classroom visistations the staff was able to take an active part in the instruction of the program and received instant feedback on program implementation.

4. At various times during the instructual year teachers were asked to respond to a "teacher reactionnaire", the purpose of which was to assess teachers preceptions and opinions of the program with which they were involved. The questions asked of the teachers were as follows:

   1. Were the objectives easily understood?
   2. What was the average preparation time per lesson?
   3. What was the average implementation time per lesson?
   4. Were the activities relevant to the abilities of the children?
   5. Were the materials and resources easy to use?
   6. Was the evaluation procedure easily understood?
   7. How did the children respond to the unit activities?

1 2 3 4 5
Enthusiastic Inattentive

   8. How did you respond to the Unit Activities?

1 2 3 4 5
Excellent Poor

The results of this "teacher reactionnaire" were overwhelmingly positive and the responses for questions 7 and 8 indicated a high level of acceptance by students and teachers who had used the programs throughout the school year. The Management System utilized the same format for assessing student/teacher attitudes with equally high results.

5. The results of criterion-referenced testing, supplied by program management, indicate that all programs have achieved or exceeded their projected goals; furthermore, it should be noted that, except for the reporting of results, program management conducted all aspects of the criterion-referenced testing. Although Research and Evaluation did not take an active part in the development, content or administration of criterion-referenced tests, it was felt that the Dunbar staff was well qualified to oversee their continued refinement and usage.

6. The amount allocated for Dunbar Diffusion Programs was $390,849.00, Title I funds. Other funds are also utilized but are not represented in the aforementioned figure. For reasons of complexity and time required of budgeting personnel, specific accountings for individual program expenditures were not requested; however, an estimate of funds consumed for the 1976-77 school year was requested. Budgeting estimates that 98 to 99 percent of the $390,849.00 allocated under Title I to the Dunbar programs was used.

Additional Information:

T177-033-9-64 Evaluation of the Diffusion of Dunbar Developed Programs, 1976-77, 1977, William W. Salmon, Thomas G. Krueck.

76-858 Evaluation of Dunbar Programs at Diffusion Sites, 1976, Wayne R. Applebaum, Ann Hobdy.

75-311-A Configuration Characteristics and Diffusion Information on Dunbar - Developed Programs, 1975, James P. Papay, Ann Hobdy, 60 pages.

75-312-B Longitudinal Comparison Information of Dunbar and Cluster Sample Schools on Standardized Achievement Tests for 1971 Through 1973 School Years, 1975, James P. Papay, Ann Hobdy, 190 pages.

TI77-124-3-9

Abstract

An Assessment of Dunbar After Five Years

Evaluator: Deberie G. Adkins

Description: In 1971, the Paul L. Dunbar Elementary School was considered representative of the central city elementary schools of the DISD. Socioeconomic indices for the school were, in fact, among the lowest in the Dallas Independent School District, and have continued to remain at the same levels. As recently as 1976, the deprivation index confirmed that 87.61% of the students in Dunbar fall within the U.S.O.E. poverty level designations. In addition, Dunbar's enrollment prior to the April 7, 1976 court ordered desegregation was 100% minority students. Average family income in the Dunbar area was $5,021 or higher than only 6% of the District's school communities, and average parental education level was ten years or higher than only 23% of the school communities.

Because of the socioeconomic environment in 1971, the Paul L. Dunbar Community Learning Center was created with the goal of developing a learning system compatible with the needs of culturally different, economically deprived children and their families. Several millions of dollars have been channeled into the Center over a five-year period for the purpose of developing, validating, and then disseminating any and all programs which were found to be effective in meeting the needs of the central city school populations. Thus, students attending Dunbar during the past five years have had the advantage of being surrounded by innovative educational programs, curriculum writers, and highly trained teachers. Moreover, in addition to basic elementary curriculum, Dunbar students were given the opportunity to participate in a variety of music, art, physical education, and personal development programs. Programs such as Learning Through Piano (LTP) and Success Through Strings (STS) were so successful with Dunbar students that they received national and international recognition. Curricula for mathematics, science, reading, and social studies were reworked for these students in attempts to meet the needs occasioned by their low socioeconomics backgrounds.

Purpose: Evaluation reports on the Dunbar Community Learning Center and the individual programs therein have been produced by the Department of Research, Evaluation, and Information Systems from 1971 to 1977. These reports have included process and product evaluation for the individual projects, as well as attempts to determine the impact of combinations or "systems" of programs on student performance. The data in these reports were generally used in making decisions concerning the discontinuance or dissemination of programs, based on their apparent success with students at Dunbar. The present report is an attempt to assess the major contribution of the five years of the Dunbar Community Learning Center to the students in the Dunbar community.

Method: This study was accomplished by reviewing Research, Evaluation, and Information Systems' reports on the Dunbar Community Learning Center over the past five years. The data presented in this study have been extracted from these reports. A complete list of references appears in the Additional Information section of this report.

Results: Although it is true that the Dunbar Community Learning Center has contributed a significant amount of curriculum materials, books, guides, and instructions to other schools in the central city area and to the District as a whole, the major concern of this study is the evidence which suggests that the Center has actually made progress in reaching the goal of a learning system for the culturally different, economically deprived population. Evidence of major significance is summarized below.

1. A longitudinal comparison of Dunbar and carefully selected cluster-sample schools using achievement data for the 1971 through 1973 school years is graphically presented in Table 1 (75-312).

   Table 1 describes the following overall trend for Dunbar:

   a. 1971-Pupil Performance of Dunbar students was worse than pupil performance in comparison schools at every grade level.

   b. 1972-One grade level (1) approximated the median performance of the comparison schools, while all other grade levels demonstrated poorer performance than comparison schools.

   c. 1973-Two Dunbar grade levels (5 & 6) fell well below the median performance of comparison schools, two grade levels (2 & 4) approximated median performance, and two grade levels (1 & 3) demonstrated performance superior to the median of the comparison schools.

   It would appear that the effectiveness of the Center in relation to student achievement was increasing over time.

2. Table 2 presents the proportion of Dunbar students above the large-city norm in reading and in mathematics from 1972 to 1975 (76-814).

Table 1

Dunbar Versus Cluster-Sample

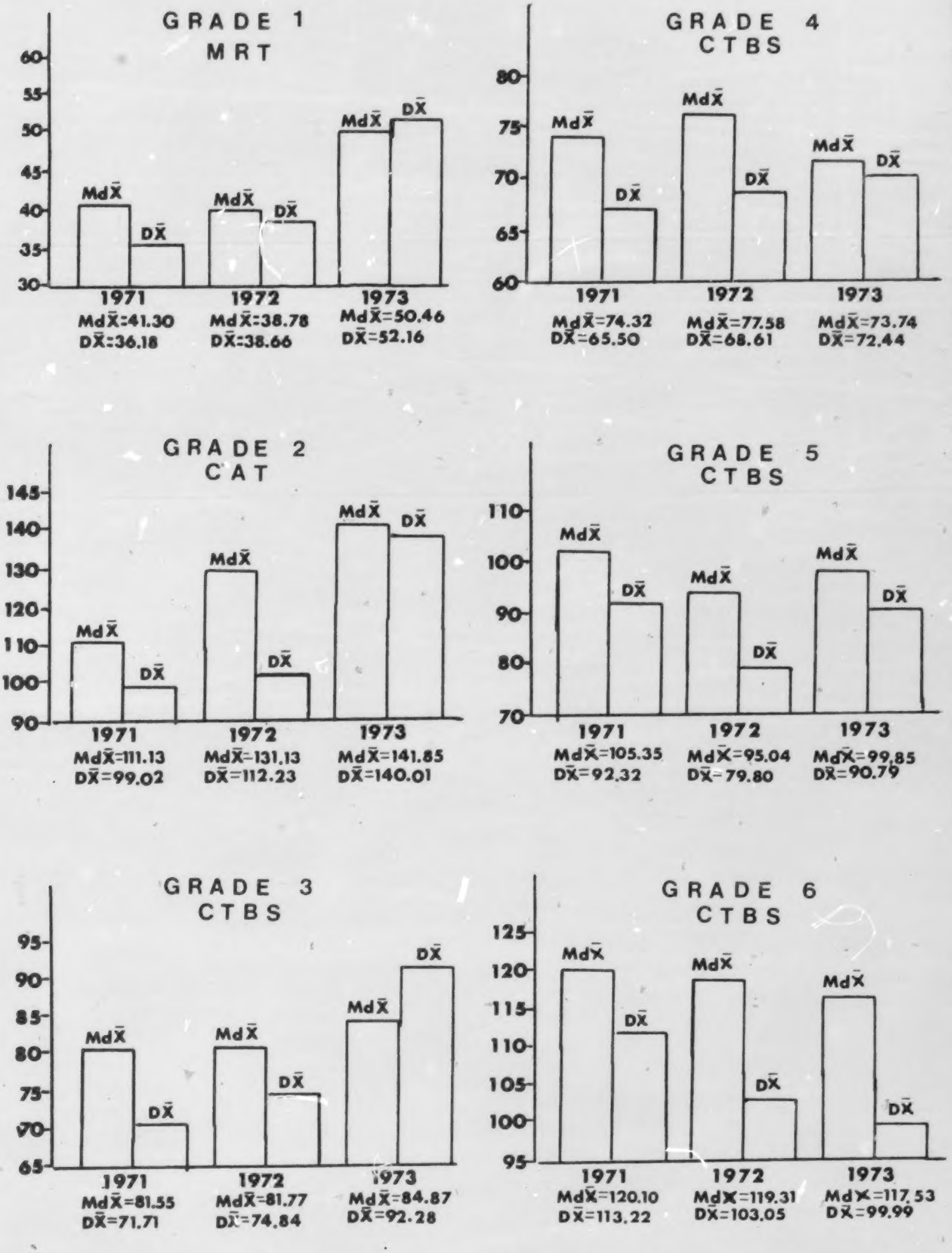

Table 2

Proportion of Dunbar Students Performing
Above Large-City Norms

Year	Reading Grade			Mathematics Grade		
	2	4	6	2	4	6
1972	11	8	7	11	3	4
1973	29	9	6	18	4	2
1974	24	7	3	41	0	1
1975	39	20	10	33	11	5

As the table illustrates, there was improvement in reading and mathematics performance from 1972 to 1973 at all grade levels except six. Although there is an apparent decrease in the proportions of students performing above large-city norms in grades 2, 4, and 6 in reading and grades 4 and 6 in mathematics from 1973 to 1974, this was a District-wide phenomenon which was probably an artifact of changing from the Comprehensive Test of Basic Skills (CTBS) to the Iowa Test of Basic Skills (ITBS). Furthermore, the trend was again reversed from 1974 to 1975 to show continued improvement.

3. Trends within schools were derived from Cohort-longitudinal Measurement Profiles, 1973-76 (IR77-009), Quasi-longitudinal Achievement Profiles 1971-76 (IR77-007), Norm-referenced Performance Profiles (IR77-008), and Norm-referenced Measurement Profiles 1976-77 (IR77-006). An analysis of the Northeast Subdistrict, of which Dunbar is a part, revealed the following information:

    a. Forty-six percent of the 4-6 schools in the subdistrict had a class of fourth grade students in 1976 with a with a grade-equivalent mean which was equal to or superior to the 1974 class, which it replaced. Dunbar was in this forty-six percent.

    b. Thirty-two percent of the 4-6 schools in the subdistrict had a sixth grade class of students in 1976 with a grade-equivalent mean which was equal to or superior to the 1974 class, which it replaced. Dunbar was in this thirty-two percent.

c. Twenty-five percent of the 4-6 schools in the subdistrict had 1976 sixth grade students (identified as enrolled there in 1975) who were as good as or better than their total group had been in 1974. Dunbar was in this twenty-five percent.

In other words, Dunbar equalled or exceeded expected gains across years 1974-76 and within grades four and six on at least two of three subtests (reading, language, and mathematics). In addition, Dunbar equalled or exceeded expected gains across years 1974-76 and across grade levels four through six on at least two of three subtests.

Summary: The evidence discussed above suggests that the Dunbar Community Learning Center has, in fact, had positive effects on student performance over a five-year period. Since the socioeconomic factors in that area remained at a fairly consistent low over that same period, the improvement is not likely to be attributable to changes in those indices. Although research has been extensive, causation for academic improvement has been and remains elusive. The Center is composed of an entire system of which students take part in segments. It is interesting to note, however, that a fundamental part of the system has been devoted to music, art, physical education, and personal development designed to give the students a chance to succeed. Success-Through-Strings students and Learning-Through-Piano students in Title I schools were reported to have higher achievement scores than their classmates in the same school (74-304). Again, causation cannot be implied, but the facts warrant consideration. Finally, average daily attendance at Dunbar has increased from 86% in 1972 to 92% in 1975 (76-814). These data suggest that the Center has been providing at least some incentive, motivation, or both for these students.

Additional Information:

IR77-009 Cohort-longitudinal Measurement Profiles 1973-76, 1977, James A. Meier, Charlotte J. Eberhart.

IR77-008 Norm-referenced Performance Profiles, 1977, Susan J. Whitmore, James A. Meier.

IR77-007 Quasi-longitudinal Achievement Profiles, 1977, Susan J. Whitmore, James A. Meier.

IR77-006 Norm-referenced Performance Profiles, 1977, James A. Meier, Susan J. Whitmore.

76-814 Performance Profiles 1976, George H. Olson, James A. Meier.

76-859 Evaluation of the Paul L. Dunbar Learning Center, 1976, Ann Hobdy, Wayne R. Applebaum, 27 pages.

76-858 Evaluation of Dunbar Programs at Diffusion Sites, 1976, Ann Hobdy, Wayne R. Applebaum.

75-582 Evaluation of Dunbar Learning System, 1975, James P. Papay, Ann Hobdy, 119 pages.

75-581 Systems Analysis of the Dunbar Community Learning Center, 1975, James P. Papay, Ann Hobdy, 88 pages.

75-312-A Configuration Characteristics and Diffusion Information on Dunbar-developed Programs, 1975, James P. Papay, Ann Hobdy, 60 pages.

75-312-B Longitudinal Comparison Information of Dunbar and Cluster-Sample Schools on Standardized Achievement Tests for 1971 through 1973 School Years, 1975, James P. Papay, Ann Hobdy, 190 pages.

74-304 Evaluation Reports for Paul L. Dunbar Learning Center 1973-74, 1974, Allen W. Scott, 304 pages.

73-138 Evaluation Report: Fundamental Levels in Physical Skills, 1973, Allen W. Scott, 24 pages.

73-149 Evaluation Report: Talent Education Program, 1972-73, 1973, Allen W. Scott, 61 pages.

73-137 Evaluation Report: Learning Through Piano: Dallas Plan, 1973, Allen W. Scott, 28 pages.

73-136 Evaluation Report: Paul L. Dunbar Visual ARts Program Pilot Test, 1972-73, 1973, Allen W. Scott, 27 pages.

73-139 Evaluation Report: Paul L. Dunbar Science Programs 1972-73, 1973, Allen W. Scott, 28 pages.

73-159 Evaluation of the Paul L. Dunbar Mathematics Programs: 1972-73, 1973, Michael R. Vitale, 29 pages.

73-151 Evaluation Report: Comprehensive Music Program, 1973, Allen W. Scott, 11 pages.

72-74 Evaluation of Development Programs at the Paul L. Dunbar Community Learning Center, 1972, Allen W. Scott, 158 pages.

72-84 Evaluation of the Talent Education Program, 1972, Allen W. Scott, 4 pages.

71-26 AAA Science: A Process Approach;
Conceptual Approach to Teaching Science;
Multicultural Social Education Program;
Comprehensive Musci Program (CMP);
Learning Through Piano-Dallas Plan (LTP-DP);
Talent Education Program (TEP);
Fundamental Levels in Physical Skills Program (FLIPS); 1971, Allen W. Scott.

70-9 Socioeconomic Study for the Paul L. Dunbar School Community, 1970, Charles A. Hunter, 18 pages.

Abstract

Evaluation of the Title I
Multicultural Social Studies Program
1976-77

Evaluators: Al Schroeder
Thomas G. Krueck

Objectives of the Program: The purpose of the Multicultural Social Studies Program (MSSP) was to provide a social studies curriculum for kindergarten through sixth grade students who were educationally and/or economically deprived. The program was multicultural in that the concepts may be considered relevant to any child regardless of cultural background.

The proposed measurable program objective was to have 75% of the program participants in Title I schools demonstrate a gain of 25% on the curriculum mastery test for the program from pretesting to posttesting of participants.

Purpose of Evaluation: The evaluation was designed to monitor the effectiveness of the diffusion of the program and to assess the impact of the program on the affected student population.

Sample: Process evaluation samples were drawn from kindergarten through sixth grade teachers and students throughout the Title I implementation area. Test data for product evaluation were drawn from a large portion of the fourth through sixth grade implementation groups, both in and outside of the Title I setting. Test data for kindergarten through third grade program assessment were drawn from within the Title I schools. Fourth through sixth grade test data were also collected from control schools outside of the Title I setting.

Evaluation Design: The design used to evaluate the success of the program in Title I schools had the following format.

$$X_1 \quad T \quad X_2$$

In this design, X represents the administering of a criterion referenced mastery test, with X_1 being administered prior to treatment and X_2 being administered following treatment. Both X's refer to the same test, and the T refers to the implementation (treatment) of MSSP.

The design used to evaluate program success in the non-Title I fourth through sixth grade implementation group has the following format.

$$\begin{array}{ccc} X_1 & T & X_2 \\ 0_1 & & 0_2 \end{array}$$

In this design, X_1 and X_2 refer to the mastery testing of the implementation group (T), and 0_1 and 0_2 refer to mastery testing of a control group parallel to the testing of the treatment group.

Evaluation questions considered during the MSSP evaluation included the following:

1. What were the characteristics of the teacher population, the student population, and the implementation sites associated with the MSSP?
2. Was the program implemented as designed at the diffusion sites?
3. What gains were made by MSSP students as reflected on criterion referenced testing, and how do those gains relate to project management's expectations?
4. Did the program task force function as planned?
5. What gains were made in grades four through six by MSSP participants in a non-Title I setting, as realized through criterion-referenced testing?
6. What were the costs related with the MSSP?

Evaluation Results:

1. The MSSP was disseminated to eighty-six Title I schools, with the intent of reaching all classrooms containing qualified Title I students. All teachers in grades kindergarten through six of the 86 Title I schools were considered administrators of the program, with the intent of impacting approximately 35,000 Title I students at those grade levels. In twenty-three non-Title I schools containing some or all of the grade levels of kindergarten through six, two class sections at each of the grade levels were selected for program implementation, with the teachers of those classes being the administrators of the program.
2. Problems surfaced early in the school year regarding material dissemination, training of teacher personnel, and in the general timeliness of program activities as set forth in the original planning. While some classrooms had all the materials as scheduled, others had no materials or partial program kits several weeks or months into the school year. Training of teachers and instructional leaders was not consistent with the timetables required by those individuals to insure complete and adequate program implementation. As a result, some schools and classrooms did not begin testing and implementation of the program until several months into the school year. At mid-year approximately twenty schools were found by project management not to be providing complete program implementation, and they were excluded from further program evaluation.

3. Depicted in Table 1 are the scores from MSSP participants for whom both pre-test and post-test data were collected and analyzed. The second column from the right indicates the average percentage of correct answers gained from pretesting to posttesting of the samples identified. The gains ranged from 9% in the fourth grade to 39% in the first grade. It may be seen in the table that the distributions of scores tended to become wider in the higher grades from pretesting to posttesting, while becoming narrower in the lower grades. This might indicate a higher consistency of program impact in the lower grades.

   Though the data seem to indicate that none of the grades met the expected program goal of 25% gain by 75% or more of the participants, grades one and two were considered to have reasonable success, given the broad expansion of the program and the implementation problems encountered. Kindergarten and grade three experienced moderate success given the environmental problems. Grades four through six, however, experienced minimal success, with approximately 20% of the gains obtained being 25% or greater. Exact percentages of the sample groups in each grade who gained 25% or more from pre- to posttesting can be seen in the right hand column of Table 1.

4. The program task force met twice during the year to discuss the MSSP and related concerns. A few community representatives and school personnel attended. During the second of the two meetings revisions of the goals and objectives of the program were considered.

5. The data in Table 2 reflect gains made by the sample of non-Title I program participants in grades four through six who were pre- and post-tested. Also found in the table are data collected from a control group of classes in those grades which was also pre- and post-tested. Average gains of program participants sampled were 9%, 12%, and 13% respectively in the fourth, fifth, and sixth grades. Control group gains were 11%, 7%, and 6% respectively. The data indicate that gains of the non-Title I MSSP participants in those grades were minimal, and gains made by the control group further suggest that program participant gains are not completely attributable to MSSP. While the fifth and sixth grade gains of program participants were higher than control group gains, the fourth grade control group gained more from pre- to post-testing than the implementation group gained.

6. For the school year 1976-77, $126,178.95 had been appropriated from Title I funding to be used in the Multicultural Social Studies Program. Of those Title I appropriations,

Table 1

Criterion Mastery Test
Results for Title 1
Pre-Post Test Sample

Grade		Pretest			Posttest			Percentage Gain from Pre-test to Post-test	Percentage of Sample Gaining 25% from Pre-to Post-test
		Mean		Standard Deviation	Mean		Standard Deviation		
	n	$\bar{X}$	%	s	$\bar{X}$	%	s		
K	365	12.8	67	3.8	17.2	91	2.1	24%	42%
1	181	7.8	52	4.1	13.6	91	2.0	39	66
2	204	6.3	45	3.6	10.4	74	3.3	29	53
3	455	7.8	43	2.7	10.8	60	3.3	17	35
4	1179	12.5	42	5.0	15.4	51	5.8	9	18
5	1178	10.6	42	3.7	13.6	54	4.5	12	17
6	1165	12.5	36	4.3	16.9	48	6.2	12	22

Table 2

Test Score Averages
for Non-Title I Sample Groups

Grade	Sample Group	Pretest Average Correct		Pretest Standard Deviation	Posttest Average Correct		Posttest Standard Deviation	Average Percentage (%) Gain from Pretest to Posttest
		X̄	%	S	X̄	%	S	
4	Non-Title I Treatment group (n=244)	15.6	52	6.2	18.2	61	6.3	9%
	Non-Title I Control group (n=184)	15.5	52	6.1	19.0	63	6.3	11
5	Non-Title I Treatment group (n=313)	13.5	54	3.8	16.6	66	4.1	12
	Non-Title I Control group (n=215)	13.4	54	4.1	15.2	61	4.2	7
6	Non-Title I Treatment group (n=285)	14.2	41	4.6	18.8	54	6.1	13
	Non-Title I Control group (n=223)	15.8	45	5.7	18.0	51	5.3	6

$88,810.44 had been expended by May 31, 1977. These data do not include monies from other funding sources which were used in providing personnel and supplies for the program.

Additional Information:

T177-032-9-3 Evaluation of the Title I Multicultural Social Studies Program, 1976-77, 1977, Al Schroeder.

76-863 Evaluation of the Multicultural Social Studies Program (MSSP) 1975-76, 1976, Al Schroeder, Thoams G. Krueck, 72 pages.

75-590 Evaluation of the ESAA Multiethnic Education Program, 1975, Robert P. Grobe, Jacquelyn I. Burns, 53 pages.

74-283 Title I Multicultural Social Science, 1974 James P. Papay, 45 pages.

73-141 Evaluation Report: Multicultural Social Science Project, 1974, James P. Papay, James Hock, 32 pages.

72-68 Evaluation of the Title I Multicultural Social Education Program, 1972, Robert J. Costello, Allen W. Scott, 27 pages.

Abstract

Evaluation of the Implementation of Title I in the Forty-One New Sites, 1976-77

Evaluators: Thomas G. Krueck
James Reagan Sides

Purpose of the Evaluation: The present study was designed to serve as a monitor of the several aspects of transition in the forty-one new Title I sites. The evaluation attempted to assess the managerial success at all levels within schools, from logistical strategies to the handling of materials. Particular emphasis was also placed on identifying areas of strength and weakness, problem-solving techniques, and future expansion efforts.

Sample: The forty-one schools designated to be Title I sites for 1976-77 were scheduled for visitation and data collection. These schools and their respective Title I grade levels are:

J. Q. Adams (4-6)
Arcadia Park (K-6)
Blanton (4-6
Bonham (K-3)
Buckner (K-3)
Burleson (4-6)
Burnet (4-6)
Caillet (4-6)
Conner (4-6)
Dorsey (4-6)
Ervin (K-6)
Foster (4-6)
Hawthorne (4-6)
Hogg (K-6)
Hotchkiss (4-6)
Ireland (4-6)
Jones (K-6)
Kleberg (K-6)
Knight (K-6)
R. E. Lee (K-6)
U. Lee (K-6)
Lipscomb (K-6)
Longfellow (4-6)
Maple Lawn (K-6)
Marcus (4-6)
Marshall (K-3)
Mt. Auburn (K-6)
Oliver (4-6)
Pershing (4-6)
Polk (K-6)
Preston Hollow (4-6)
Rogers (4-6)
Rosemont (K-6)
Rowe (4-6)
Rylie (4-6)
San Jacinto (4-6)
Stevens Park (K-6)
Truett (4-6)
Walnut Hill (4-6)
Williams (4-6)
Winnetka (K-6)

With the exception of four schools (Burnet, Hogg, Rosemont, Stevens Park), every new Title I school was visited between October 1 and December 16, 1976. In the vast majority of schools, the Principal was interviewed during the initial visit. From the information collected at that time, a sample of ten schools was chosen for follow-up consideration. These ten schools were Arcadia Park, Blanton, Caillet, Ervin, Foster, Umphrey Lee, Mount Auburn, Oliver, Rowe, and Rylie. During the second round of visits, Instructional Leaders were interviewed. These interviews occurred during the week of April 25-29, 1977.

Evaluation Design: Interviews were conducted informally at the convenience of the Principal or Instructional Leader. Although no written questionnaire was utilized, questions were patterned to approximate the major evaluation questions.

Each school was visited by two staff members (one Senior Evaluator and one Assistant Evaluator) from the Department of Research, Evaluation, and Information Systems. Individual interviews were composed of two major sections. In the first the Senior Evaluator explained to the Principal the workings of Title I evaluation and the service functions of the Department of Research and Evaluation. In the second part of the interview, the Principal answered questions concerning Title I in his school. During this time, the Assistant Evaluator took notes. Interviews lasted from fifteen to ninety minutes.

Interviews during the second round usually lasted no more than fifteen minutes. Again, each school was visited by a Senior Evaluator and an Assistant Evaluator. While the Instructional Leader answered the Senior Evaluator's questions, the Assistant Evaluator took notes. The major evaluation questions were:

1. What were the reactions of managerial and support staff upon receiving Title I status?
2. What were the problems encountered during the implementation of Title I programs, and where did these problems occur?
3. What were the logistical operations involved in the implementation of Title I programs?
4. Was the availability of materials a significant factor in the adequate implementation of Title I programs?
5. What was the nature of the support staff, particularly resource administrators and/or instructional leaders, within each new Title I site?

Evaluation Results:

1. Principals and staff members typically agreed that their transition to new Title I status was a major

task for which they were not totally prepared, although their outlook was generally positive. Despite the combined responsibilities of desegregation and implementation of new programs, administrative and instructional staff alike met the challenges with optimism and sustained effort. Those individuals who initially were hesitant about Title I were said to be, by the spring semester, looking forward to next year.

2. An almost universal complaint among Principals and Instructional Leaders was the inordinate amount of testing, both standardized and placement, which occurred at the beginning of the school year. Program start-up dates were inevitably set back because of the long testing period, which commonly lasted throughout most of the first six weeks. Principals were enthusiastic at the prospect of standardized testing during the spring only, allowing student placement tests to be given early in the school year.

   In the majority of schools, three additional problems were encountered which contributed to the delay in program implementation. These three factors - incomplete instructional staff, inadequate staff development, and incomplete material dissemination - often resulted in administrative and instructional staff confusion and frustration. Once these three factors had been dealt with successfully, and the testing had been administered, the Title I programs were implemented smoothly and effectively.

3. Title I programs were implemented most efficiently in schools which had a complete instructional staff (i.e., Instructional Leader and Resource Teachers) from the beginning of the school year. Some Instructional Leaders reported that they were delayed in assuming their positions because of a lack of a qualified replacement in the classroom. Without the appropriate instructional leadership, programs usually were not fully introduced into the classrooms. Similarly, most staff development which had occurred was reported to be deficient in aiding teachers. Staff training was criticized as superficial and too late to be useful. Instructional Leaders suggested that staff development be prior to the opening of school, detailed, practical, and, above all, conducted at the classroom teacher level. These goals, they said, could be accomplished either at individual school meetings or area/subdistrict meetings.

4. Many schools reported problems regarding the distribution of materials. Math and reading materials were reported to be less a problem than Multicultural Social Studies Program (MSSP) kits. The MSSP materials were often cited to be late, incomplete and/or incorrect.

5. Principals overwhelmingly agreed that the Instructional Leader was the key to the success of Title I in each school. Without the needed coordination and guidance provided by the Instructional Leader and his or her staff, program implementation in the new Title I schools would have been disastrous. Principals reported excellent support from staff members in every area as well as competent assistance from program managers and component representatives. Also the majority of principals reported that their staff looked optimistically to the 1977-78 school year.

Additional Information:

T177-101-9-5 Evaluation of the Implementation of Title I in the Forty-One New Sites, 1976-77, 1977, Thomas G. Krueck, James Reagan Sides.

76-854 Evaluation of the Targeted Achievement in Reading Program, 1976, Deberie L. Gomez, 142 pages.

76-855 Evaluation of the Targeted Achievement in Mathematics Program, 1976, Deberie L. Gomez, 117 pages.

76-863 Evaluation of the Multicultural Social Studies Program (MSSP) 1975-76, 1976, Al Schroeder, Thoams G. Krueck, 72 pages.

76-861 Composition of the 1975-76 School Day for Title I Children, 1976, Thomas G. Krueck, 34 pages.

76-862 Effects of Kindergarten in Title I Schools, 1976, Deberie G. Adkins.

Abstract

Title I Pupil Attendance and Mobility Study 1976-77

Evaluator: Thomas G. Krueck

Purpose of the Evaluation: The Dallas Independent School District (Dallas ISD) for six years has instituted special programs under the provisions of the Elementary and Secondary Education Act - Title I (ESEA - Title I). An anticipated, and constantly monitored, effect of these programs has been increased attendance among the participants over the past several years.

The purpose of this study was to document and isolate the attendance and mobility patterns of Title I children. This was of particular interest for the 1976-77 school year since this was the year that initiated the transportation of children at grades 4 through 6 as provided for in the Court-Ordered Desegregation Plan. Comparisons were also made of attendance and mobility between students affected by the plan and those left at neighborhood schools.

Sample: All Title I students enrolled for any portion of time at any one of the Title I schools during the 1976-77 school year. For comparison purposes, data on current Title I students as well as previously enrolled Title I students will be extracted from data files for 1975-76 school year.

Evaluation Design: The design simply called for an examination of historical data concerning attendance, transfers and drops. Using the 1975-76 school year as a base, data collected through the fifth six-weeks period for 1976-77 were examined both to document the existing situation and measure of the strength of trends in the areas of mobility and attendance. No efforts were planned to test statistical significance of differences obtained but rather to present findings in such a way as to allow the reader to draw conclusions, taking into account factors that were not readily quantifiable.

The major evaluation questions were:

1. What is the attendance pattern of Title I children by grade, sex, and school?
2. How does attendance compare with previous years?
3. To what extent do Title I children transfer or drop out of the program?
4. How do transfers and dropouts compare with previous years?
5. Does the desegregation plan for grades 4 through 6 have any impact on their attendance and/or mobility?

Evaluation Results:

1. The results of attendance for 1976-77 showed various trends. There has been a small but consistent increase in the number of days students attend from kindergarten through the sixth grade. There also existed a slight decline in attendance from the first through the fifth six-weeks periods. These findings were consistent with 1975-76. There was also so significant difference in attendance rates among ethnic groups or between males and females. The average attendance for 1976-77 was 131 out of 145 days. Furthermore, no pattern of attendance could be found for schools on the basis of grades served or location. Table 1 shows the attendance results for 1976-77, as well as 1975-76, based on sex and ethnicity.

Table 1

Mean Total Attendance, 1975-76 and 1976-77, by Sex and Ethnicity

	1975-76 (151 Possible Days)		1976-77 (145 Possible Days)	
Ethnicity	M	F	M	F
Anglo	132.6	133.0	129.7	129.2
Black	137.7	137.5	131.8	131.3
Mexican-American	134.9	134.2	129.2	128.7
Native-American	131.6	132.9	129.2	128.8
Other	139.5	137.8	137.7	136.6

2. Over the past several years there has been steady increase in attendance. In 1975-76 attendance reached 90% for the Title I population. This may be the ceiling since 1976-77 found only a slight increase to 90.3%. This attendance rate is quite favorable considering that there was little or no fluctuation based on grade, sex, ethnicity or school location.

3. Tables 2 through 5 present the findings regarding drops and transfers for the 1976-77 school year. Tables 1 and 2 deal with drops and transfers by six-week period and grade. Of the 43,214 students who participated in Title I during the year, 8% withdrew from school and 15% transferred within the Dallas ISD. Considering the uniqueness of the Title I population, these indicators of mobility were quite favorable. Tables 3 and 4 examine the composition of those who dropped or transferred on the basis of sex and ethnicity. The following are general findings discernable from the data:

   a. By comparison with the entire Title I student population, kindergarten and fifth-grade children had proportionately fewer drops, while grades 2,3 and 6 had a higher representation.

   b The majority of student **withdrawals** occurred during the third and fourth six-week periods. This was true across all grade levels. Furthermore, no differences were found based on the variables of sex or ethnicity.

Table 2

Number and Percentage of Drops
for Four Six-Weeks Period, 1976-77, by Grade

	Six-Weeks Period								
	1		2		3		4		Total
Grade	N	%	N	%	N	%	N	%	N
K	4	2	40	19	65	30	107	49	216
1	58	12	66	14	147	30	212	44	483
2	75	14	83	15	162	29	234	42	554
3	75	14	73	13	208	37	201	36	557
4	26	7	113	26	118	28	167	39	424
5	19	5	114	28	133	33	140	34	406
6	22	3	173	25	131	18	376	54	702
TOTAL	279	8	662	20	964	29	1437	43	3342

Table 3

Number and Percentage of Drops by Sex and Ethnicity, 1976-77

Ethnicity	SEX				Total
	Male		Female		
	N	%	N	%	N
Anglo	318	55	263	45	581
Black	1046	50	1036	50	2082
Mexican-American	344	51	328	49	672
Native-American	5	63	3	37	8
Oriental	2	33	4	67	6
Other	2	100	0	0	2
TOTAL	1717	51	1634	49	3351

c. An examination of transfers by grade level found no unique or disproportionate findings. However, the breakdown by six-week period showed that the number of transfers declined during the fourth six-week period, but then there was marked increase in the fifth.

d. Blacks had proportionately fewer transfers than Anglos when compared with the percentage breakdown for all Title I participants. Transfers were evenly divided between males and females.

e. Of those Title I students who transferred during the 1976-77 school year, over three-fourths (77%) moved only once. Less than one-fifth (18%) transferred twice, and only 4% transferred three times. Finally, 56 students, from a total of 6567, transferred four or more times.

Table 4

Number and Percentage of Transfers for Each Six-Week Period, 1976-77, by Grade

	Six-Week Period												
	1		2		3		4		5		6		Total
Grade	n	%	n	%	n	%	n	%	n	%	n	%	n
Kindergarten	34	4	114	14	118	14	112	14	224	28	211	26	813
First	219	18	216	18	188	15	152	13	248	20	197	16	1220
Second	238	20	232	19	205	17	130	11	226	18	189	15	1220
Third	224	18	295	24	192	16	132	11	201	16	179	15	1223
Fourth	208	18	222	19	169	15	125	11	264	23	154	14	1142
Fifth	183	17	212	20	163	15	106	10	269	26	131	12	1064
Sixth	350	26	250	18	210	15	172	13	239	18	138	10	1359
TOTAL	1456	18	1541	19	1245	15	929	12	1671	21	1199	15	8041

Table 5

Number and Percentage of Transfers By Sex and Ethnicity, 1976-77

	SEX				
Ethnicity	Male		Female		Total
	N	%	N	%	N
Anglo	952	53	847	47	1799
Black	2306	51	2236	49	4542
Mexican-American	810	50	795	50	1605
Native-American	21	60	14	40	35
Oriental	9	38	15	62	24
TOTAL	4111	51	3913	49	8024

4. In comparing 1976-77 data with results from 1975-76, two factors must be kept in mind. First of all, the ethnic composition changed drastically with the court-ordered busing at grades 4-6. Secondly, the system for collecting accurate transfer information improved greatly in 1976-77, leading to a closer monitoring and hence more reported transfers. Noteworthy comparisons were as follows:

   a. In examining the proportion of students transferring by grade it was found that the bulk of the transfers shifted from grades K-1 in 1975-76 to the sixth grade in 1976-77.

   b. Transfers by ethnicity showed a marked decline in the proportion of Blacks transferring and a corresponding increase for Anglos.

   c. An accounting of the number of drops through the fifth six-weeks period found 2235 in 1975-76, while, through only four six-week periods in 1976-77, there were 3342 drops.

   d. As with transfers, there was a shift from 1975-76 to 1976-77 in the proportion of drops from grades K-1 to grade 6. Also there were proportionately fewer Blacks and more Anglos withdrawing in 1976-77 as compared to 1975-76.

5. The monitoring of attendance for students in Title I schools at grades 3 through 5 in the 1975-76 and grades 4 through 6 in 1976-77 who were directly impacted by the court order found a marked increase in attendance across all schools and grades. This increase refers only to those students who could be matched with attendance records for both years and remained in a Title I setting. As an example, this would include all Frazier students at Rowe but no Urban Park or Rowe walk-in students who became eligible for Title I in 1976-77. Furthermore, this would exclude students who were in Title I in 1975-76 but were bused to a non-Title I campus (e.g., Colonial students). Table 6 presents the gains in attendance for those students identified above by grade level. The gains in attendance increased from fourth through sixth grade. Gains of ten or more days were obtained by 26.1% of the fourth graders, 46.9% of the fifth graders and 59.4% of the sixth graders. This increase in attendance may well have been a contributing factor to the academic gains realized in math and reading at grades 4 through 6.

Table 6

Adjusted Attendance Gains from 1975-76 to 1976-77 By Grade for Title I Students Impacted By Court-Ordered Desegregation

Adjusted Attendance Gains*	GRADE 4		GRADE 5		GRADE 6	
	N	c%	N	c%	N	c%
-10 days or more	114	14.2	105	9.7	72	9.0
- 7 to -9	39	19.1	22	11.8	18	11.2
- 4 to -6	43	24.5	47	16.1	27	14.6
- 1 to -3	61	32.1	53	21.0	36	19.0
0	41	37.2	23	23.1	20	21.5
+ 1 to +3	96	49.2	68	29.4	41	26.6
+ 4 to +6	97	61.3	110	39.6	42	31.8
+ 7 to +9	101	73.9	145	53.1	71	40.6
+10 to +12	88	84.8	109	63.1	79	50.4
+13 to +15	38	89.5	118	74.0	104	63.4
+16 to +18	35	93.8	120	85.0	106	76.6
+19 days or more	49	100	164	100	187	100
TOTAL	802		1084		803	

*Attendance gains were adjusted to reflect the difference in the total number of days, 151 for 1975-76 and 145 for 1976-77, through the fifth six-weeks period.

Additional Information:

T177-040-9-5 Title I Pupil Attendance and Mobility Study, 1976-77, 1977, Thomas G. Krueck, Reagan Sides.

76-854 Evaluation of the 1975-76 Targeted Achievement in Reading Program, 1976, Deberie L. Gomez, 142 pages.

76-855 Evaluation of the 1975-76 Targeted Achievement in Mathematics Program, 1976, Deberie L. Gomez, 117 pages.

75-588 Evaluation of the Targeted Achievement in Reading Program, 1975, Robert J. Costello, Gwen White, 152 pages.

75-585 Evaluation of the Targeted Achievement in Mathematics Program, 1975, Deberie L. Gomez, Gwen Whites, 72 pages.

74-230 TARP: Attendance and Academic Achievement, 1974, Robert J. Costello, James P. Papay, 24 pages.

1944

Abstract

Evaluation of Title I Staff Development Program

Evaluators: Cordelia R. Alexander
Patricia A. Montgomery

Objectives of the Program: The 1976-77 Title I Staff Development Program (SDP) was designed to alleviate teacher deficiencies in relating to students of inner city schools as indicated by school disruptions, poor attendance, and high percentages of failures. The overall goal of the program was to provide the ESEA Title I personnel with an opportunity to participate in and benefit from an extensive retraining program in cross-cultural experiences. The training was intended to emphasize flexibility in teaching style, capacity for self-renewal, receptivity for change, and improved human relations that would result in better understanding of inner city students. The major SDP goals were to be attained through implementation of the Dallas Urban Education (DUE) and the Educational Excellence (EE) programs.

Purpose of the Evaluation: This evaluation was designed (1) to provide interim information to both project staff and participating Title I personnel in order to identify program needs and successes and (2) to assess the end-of-year results in the realization of the projected SDP goals and the quality of the services rendered toward facilitating the improvement of inner city teacher-student situations.

Sample: Data were analyzed for District student teachers from North Texas State University, Texas Woman's University, and Southern Methodist University who participated in the DUE program and for the teachers who participated in the EE program. There were totals of 60 participants for the two DUE sessions and 129 participants for the three EE sessions. Table 1 indicates the complete demographics for all participants.

Evaluation Design: Criterion-referenced surveys were used to evaluate each session of the DUE and EE programs. Objectives of each session and relevant questions were submitted by the various presenters to the evaluator and each instrument was developed using the presenters' and the evaluator's input. The EE surveys primarily contained cognitive items, while the DUE surveys contained both cognitive and affective items considering that the goals of the SDP were designed to provide knowledge regarding teaching strategies and to develop awareness of cultural differences and humanism. Surveys were administered in both the initial and final events of each DUE and EE session. A score was equivalent to the number of questions correctly answered. The means and standard deviations were calculated for each set of scores obtained after each survey administration. A t-test of differences between the pretest and posttest mean scores was determined for each session. A 70% criterion

TABLE 1

DEMOGRAPHIC DATA FOR SDP PARTICIPANTS

DUE SESSIONS

	SEX			ETHNICITY					COLLEGE REPRESENTED			
	Male	Female	Total	Anglo	Black	Mexican-American	Native-American	Total	TWU	SMU	NTS	Total
NUMBER	7	53	60	45	11	1	3	60	11	21	28	60
PERCENT	12	88	100	75	18	2	5	100	18	35	47	100

Number of Participants by School Assignment

Title I Schools

J. N. Bryan	3	A. S. Johnson	2
F. P. Calliet	5	R. E. Lee	3
A. Earhart	1	H. W. Longfellow	2
J. W. Fannin	3	Maple Lawn	1
N. Hawthorne	3	B. Milam	4
L. L. Hotchkiss	4	J. Navarro	7
S. Houston	2	Preston Hollow	6
			46

Non-Title I Schools (Students from Title I Feeder Schools)

P. C. Anderson	1
Hillcrest	1
O. W. Holmes	3
North Dallas	1
F. D. Roosevelt	1
H. G. Spruce	5
W. T. White and T. C. Marsh	1
	13

EE SESSIONS

	SEX				ETHNICITY					
	Male	Female	No Response	Total	Anglo	Black	Mexican-American	Native-American	No Response	Total
NUMBER	1	127	1	129	69	43	14	2	1	129
PERCENT	1	98	1	100	53	33	11	2	1	100

DISD Sub-District Assignment

	East Oak Cliff	North-East	North-West	Southeast/ Seagoville	South-West	No Response	Total
NUMBER	15	23	35	22	30	4	129
PERCENT	12	18	27	17	23	3	100

Number of Participants by Workshop

	March 14-16	March 29-31	April 19-21	Total
TOTAL PRESENT	42	43	44	129
Percentage from Title I Schools	71	56	55	60

was set by the SDP staff; this specified that 70% of the participants attending each session were expected to answer at least 70% of the questions in post-assessment. A complete data analysis and listing of participants' comments was presented to the SDP personnel shortly after each session was completed.

Interviews with the SDP staff were also conducted to obtain information and to determine the relationship between the staff and District Title I staff training sessions. The following evaluation questions were analyzed:

1. Was the Staff Development Program (SDP) implemented as proposed?

2. Did participation in the SDP affect the knowledge of teaching strategies necessary for effective inner city teaching?

3. What was the effect of the SDP with respect to knowledge of and attitude toward various cultural groups?

4. What major comparisons can be made over the last three SDP programs?

5. What were the costs related to the Staff Development Program?

Evaluation Results

1. The SDP was implemented as proposed through the Dallas Urban Education Program (DUE) and the Educational Excellence (EE) programs. DUE sessions were held February 14-15 and April 4-5, 1977 for student teachers from North Texas State University, Southern Methodist University, and Texas Woman's University. EE sessions were held March 14-16, March 29-31, and April 19-21, 1977 for kindergarten through third grade teachers of the Dallas Independent School District.

   SDP personnel also conducted and monitored various Title I staff training sessions throughout the District, and were involved in the development, coordination, and presentation of two Competency Indicator Scale training workshops for supervising teachers and ten staff development sessions for District paraprofessionals.

   Limited program participation was recorded, however, with only one representative from each school being involved in the program's major activities instead of the proposed three.

2. Evaluation questions two and three were analyzed through the responses received to cognitive/affective-type surveys administered at the two DUE sessions and the three EE sessions. See Table 2 for a complete analysis of results. There were significant increases in the mean scores across all DUE and EE sessions. On post-assessment, 75% of the total DUE participants and 80% of the total EE participants correctly met or exceeded the 70% criterion set for the surveys. The DUE survey contained a separate section to assess participants' attitudes toward various cultural groups. A comparison of the pre- and post-assessment responses indicated that the

TABLE 2

COMPOSITE SURVEY RESULTS

DUE SESSIONS

Dates of Sessions	February 14-15		April 4-5	
	Pre	Post	Pre	Post
Number of Participants Surveyed	28	27	32	28
Percent Achieving Criterion (70%)	4	96	0	54
Mean Score	7	12*	6	11*
Standard Devistion	1.6	1.9	1.8	1.9
Total Items Analyzed	14	14	15	15

EE SESSIONS

Dates of Sessions	March 14-16		March 29-31		April 19-21	
	Pre	Post	Pre	Post	Pre	Post
Number of Participants Surveyed	40	41	43	43	44	43
Percent Achieving Criterion (70%)	0	76	2	84	2	79
Mean Score	6	11*	7	13*	7	12*
Standard Deviation	1.4	1.7	1.8	1.7	2	1.8
Total Items Analyzed	13	13	15	15	15	15

* T- test of results indicate a significant increase in the number of questions correctly answered.

attitudes of many participants towards minorities were more in align with what authorities deemed desirable attitudes for a teacher of minority children following the DUE sessions. These results suggest that participants made meaningful knowledge gains and some attitudinal changes toward achieving the goals of the SDP.

3. The last three SDP programs generally encompassed similar topics and used like means to provide information and relevant experiences to its participants. The targeted population for SDP activities has varied each year. This year's sample for the DUE program was District student teachers coming from three area universities. The EE program served teachers of kindergarten through third grade from throughout the District.

   The 1974-75 SDP utilized standardized attitude surveys and opinionnaires for assessment, while the 1975-76 SDP and 1976-77 SDP evaluations primarily utilized cognitive/affective-type surveys developed by the presenters and the evaluator. Assessment results were similar with participants reacting positively to programs. Attainment of program goals this year as measured by participants reaching the criterion on surveys was slightly higher than last year's results.

4. The budget for the 1976-77 SDP was $142,000. The largest percentage of the budget was utilized to pay salaries for Title I SDP personnel. Title I funded personnel included five resource teachers, one coordinator, and the manager*. Remaining funds from the budget were primarily used in the following ways: (1) to pay consultants from outside the District who gave program presentations; (2) to purchase books and materials for research purposes; (3) to purchase general office supplies; and (4) to cover printing and duplicating costs.

Additional Information:

T177-035-9-5 Evaluation of Title I Staff Development Program, 1977, Cordelia Alexander, Patricia A. Montgomery.

76-857 Evaluation of the Title I Staff Development Program 1975-76, 1976, Cordelia R. Alexander, Joan Jackson, 125 pages.

75-586 Evaluation of the Staff Development Program (Title I), 1975, Deberie L. Gomez, 57 pages.

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*Deputy Associate Superintendent-
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Abstract

Evaluation of the Title I Community Involvement Program in Title I Schools 1976-77

Evaluators: Joan E. Jackson
Cordelia R. Alexander

Objectives of the Program: The 1976-77 Community Involvement Program (CIP) was designed to assist parents of eligible Title I students in discovering ways to become involved in the school learning process. The CIP sought to encourage parental involvement through: (a) the local parent advisory council on each Title I school campus; (b) community school programs; (c) workshops relative to Title I programs; (d) other activities identified as helpful to parents or community members; and (e) the recruitment of volunteers to work in each Title I school. CIP staff worked to alleviate problems which had an adverse effect on the school attendance of Title I students.

The objectives of the program were: (1) the same as the performance objectives for TARP and TAMP and (2) upon the completion of the 1976-77 school year, 80% of the eligible children in the E.S.E.A. Title I Program were to attain at least a 10% gain in daily attendance as measured by their attendance records for 1976-77 as compared with their attendance records for 1975-76.

Purpose of the Evaluation: This evaluation was designed to (1) provide interim information to project management and project staff in order to assess program needs and adherence to goals and (2) to assess the year-end results in the realization of the projected goals and the quality of the services rendered toward involving parents in the school and contacting the parents of attendance-related referrals.

Sample: Data were analyzed relative to the activities of 29 parent ombudsmen (visiting teachers), 15 home/school liaisons, and the CIP manager. Parents of eligible Title I students and community persons residing in various Title I school areas who participated in local parent advisory councils, Title I workshops, community school programs, and other CIP activities were also a part of the targeted population in this evaluation. A sample of students referred to CIP personnel for high absenteeism were also included in the evaluation of this program.

Evaluation Design: Data for analyzing the impact of CIP were obtained through: (a) interviews with CIP staff; (b) monthly CIP statistical reports; (c) records of local parent advisory council meetings,

community school activities, Title I parent workshops, and CIP activities; (d) parent evaluations of various CIP activities; and (e) the evaluator's observations of parental involvement programs in Title I schools. Parent evaluation survey and reporting forms for CIP parent activities were designed by the evaluator in cooperation with the program manager. The statistical reports were compiled by the CIP from reports submitted each month by all parent ombudsmen and home/school liaisons.

The following questions were analyzed:

1. Was the Community Involvement Program (CIP) implemented as proposed? What were the indices of this implementation?

2. What was the difference between the number of students referred to parent ombudsmen for poor attendance and the number of parents contacted about the referral of their children?

3. To what degree did students referred to CIP staff for poor attendance improve their attendance rate during the 1976-77 school year? How did this compare to these students' attendance rates during the 1975-76 school year?

4. What was the extent of parental participation in the local parent advisory councils (PAC), community schools, and other CIP activities?

5. What major comparisons can be made between the 1975-76 CIP and the 1976-77 CIP?

6. What were the costs associated with the Community Involvement Program?

Evaluation Results:

1. The program was implemented as proposed with one exception; due to transfers, the CIP did not maintain the proposed number of parent ombudsmen or home/school liaisons. Although prospective parent ombudsmen were identified, they either could not be taken from the classroom or did not meet all the requirements for the job. All parent ombudsmen were instrumental in the establishment of the local parent advisory council on each Title I school campus. The CIP staff recruited volunteers for Title I schools and promoted parental involvement through various activities. In addition, parent ombudsmen worked in cooperation with the staff of other Title I programs in conducting Title I program work-

shops for parents. Through the aid of the Title I Community Resource Teacher who was funded through the CIP, business, museum, and community awareness field trips were coordinated for Title I students.

2. Parent ombudsmen contacted 75-100 percent, or approximately 9,640 parents of students who were referred for poor attendance. Seventy-nine percent or 11,341 of the 14,348 student referrals received by the CIP staff were attendance-related. Results obtained from interviews with parent ombudsmen revealed that an average of three home visits were made for each student referral. According to ombudsmen, family mobility was a factor in most cases where parents were not contacted.

3. During the 1976-77 school year the attendance rate of students referred for poor attendance increased for each six weeks period with the exception of the fourth six-week period. The attendance records of 675 students referred to parent ombudsmen were analyzed to determine any improvement over the year. The following table shows the average daily attendance rate for this sample of students for five six-week periods during the 1976-77 school year.

Attendance Growth for Students
Referred for Poor Attendance

		Average Daily Attendance		
Six-Week Period	Number of Students	Number of Days in Period	Number of Days Attended	Percent of Days Attended*
August 23 - October 1, 1976	675	29	19.8	66
October 4 - November 12, 1976	675	29	20.2	70
November 15, 1976 - January 14, 1977	675	30	21.0	70
January 17 - February 24, 1977	675	29	20.7	71
February 25 - April 7, 1977	675	28	21.1	75

* Percent is based on number of days in the six weeks period.

Attendance data for the 1975-76 school year was available for 329 of the students used in this sample. When comparing these students' attendance records for the two years, 23 percent or 73 students had demonstrated a gain in attendance over the previous year. Thirty-one students made at least a 10% increase, 20 students indicated at least a 5% gain, and 25 students demonstrated a 1-4 percent gain in attendance over the 1975-76 school year. It is questionable if a direct correlation between the CIP and student attendance rates can be isolated even over the past two years. It would seem appropriate to continue a longitudinal study of this aspect and provide support to justify the correlation.

4. The 1976-77 Community Involvement Program demonstrated an increased effort to promote parental participation on Title I school campuses as evident from the evaluator's observations of Title I workshops, local PAC meetings, and community school classes and recreation programs. An average of five parent advisory council meetings were held at Title I schools for the 1976-77 school year, with 6-10 parents in attendance at the PAC meetings observed by the evaluator. The number of parents who attended various workshops ranged from 5 to 150. The following table indicates the type of parent activities and/or workshops that were conducted on the campuses of Title I schools that had at least seven parent activities including PAC meetings and/or parent workshops.

A Sample of CIP Parental Involvement Activities
1976-77

School	PAC Meetings Held	PAC Parents Present*	Workshops and Other Activities	Parents Present in Activities*
Adams	7	6	Parenting Sessions (5)	48
			SWRL Reading and Math	26
Allen	8	7	Merienda	10
			Parenting Session	10
Bowie	2	10	Merienda (3)	23
			Parenting Sessions (5)	46
			Title I Programs	8
			Family Library Activities	3
			Home Decorating (2)	18
			Partners in Reading	10

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A Sample of CIP Parental Involvement Activities
1976-77 (cont'd)

School	PAC Meetings Held	PAC Parents Present*	Workshops and Other Activities	Parents Present in Activities*
Brown	7	16	Hoffman Reading	73
			Parenting Session	12
			Macrame	9
			Reading Tips for Parents	31
Burleson	7	7	Bus Safety	30
Bushman	7	6	BRL Reading/SWRL Math	6
Carr	5	12	Parenting Sessions (5)	55
			Hoffman Reading	25
			Macrame	11
			Communications	14
City Park	7	4	Hoffman Reading (2)	36
			Distar Math	12
Colonial	7	7	Parenting Session	6
			Hoffman Reading	5
Conner	7	8	Arts and Crafts	9
			Title I Programs	6
Darrell	6	30	Parenting Sessions (2)	36
			BRL-Make It/Take It	150
Dorsey	8	6	Title I Programs (2)	66
Douglass	5	7	Quioscos (11)	64
			Meriendas (3)	49
Dunbar	5	8	Parents Night	22
			Parenting Session	34
			Make It/Take It	9
Ervin	4	14	Parenting Session	5
			BRL Reading	38
			Title I Programs	5
Fannin	7	8	Title I Programs	19
			BRL Reading	32
Foster	7	8	Title I Programs	2
Frazier	6	11	Hoffman Reading and Math	10
			Parent/Teacher	58
Harllee	8	4	Title I Programs	6
			Parenting Sessions (2)	16
			Make It/Take It	44

*These numbers indicate the average or approximate number of parents present.

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A Sample of CIP Parental Involvement Activities
1976-77 (cont'd)

School	PAC Meetings Held	PAC Parents Present*	Workshops and Other Activities	Parents Present in Activities*
Hawthorne	5	14	Parent/Child Communication	4
			Math (2)	12
			Discipline	5
			ITBS	14
Houston	7	8	Title I Programs	29
			Parenting Sessions (2)	9
Jackson	7	8	SRA Math	6
			Title I Programs	28
Johnston	4	11	Partners in Reading	14
			Make It/Take It	20
			Parenting Session	25
			Homemaking	20
			Volunteer Training	25
			SWRL Reading (2)	115
			SWRL Math	8
Lee, U.	7	5	Title I Programs	7
Lisbon	6	7	Pre-School Round-Up	13
			BRL Reading	6
Longfellow	6	10	Parenting Sessions (9)	15-19
			SWRL	10
Marshall	6	15	SWRL Math	8
			Title I Programs	36
Mills	7	13		
Navarro	6	6	SWRL Reading (2)	17
			SWRL Math	6
			Partners in Reading	11
Pease	8	10	Parenting Sessions (4)	196
Ray	7	10	Hoffman Reading	19
			Homemaking	22
			Approaches to Reading	7
Rhoads	7	10	Reading - Basal and BRL	20
Rogers	7	7	Homemaking	22
			Approaches to Reading	7
Rosemont	7	7	Meriendas (3)	27
			Title I Programs	33
Rowe	6	7	SWRL Reading	17
			Title I Programs	5

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A Sample of CIP Parental Involvement Activities 1976-77 (cont'd)

School	PAC Meetings Held	PAC Parents Present*	Workshops and Other Activities	Parents Present in Activities*
Russell	9	5	Improving Reading	39
			Parental Involvement	23
Seguin	9	19	Title I Programs	152
			Parenting Sessions (2)	17
			Make It/Take It	60
Stevens Park	8	11	Meriendas (3)	19
			SWRL Reading	18
			Volunteer (2)	23
			Title I Programs	40
Thompson	9	9	Hoffman (3)	115
Truett	7	10	BRL Reading	10
			Arts and Crafts	9
Tyler	8	8	Title I Reading and Math	12
			Learning is Family Fun	16
Walnut Hill	8	8	Fun and Games for Parents	11
			SWRL Reading	9
			SWRL Math	7

Each community school offered an adult basic education (A.B.E.) course or a general educational development (G.E.D.) course. In addition, typing was offered in three community schools, sewing in five, and English as a Second Language (E.S.L.) was offered in three community schools. These adult classes had an average of 12 students enrolled while the evening physical and recreational part of the community school program attracted approximately 25-200 individuals each night of operation.

5. During the 1976-77 year, the Community Involvement Program expanded its parent/community activities in Title I schools over the previous year. Each Title I school had at least two PAC meetings and in 50% of the Title I schools, the number of meetings ranged from 6 to 9. Ninety-one percent of the schools had at least one Title I workshop with 82 percent having at least two workshops for parents. Although the CIP staff did not

increase, the program's field of operation increased from 50 Title I schools to 86. This increase in the number of Title I schools probably acounted for the 19% increase in the number of attendance referrals received by the CIP staff during the 1976-77 year.

6. For the 1976-77 school year, $678,039.80 in Title I funds was allocated for the implementation of the CIP. By May 31, 1977, $490,243.61 had been used to meet the expenses of the program.

Additional Information:

T177-034-9-5 Evaluation of the Community Involvement Program in Title I Schools 1976-77, 1977, Joan E. Jackson, Crodelia R. Alexander.

76-856 Evaluation of the Title I Community Involvement Program, 1975-76, 1976, Cordelia Alexander, Joan E. Jackson, 115 pages.

75-379 An Assessment of Community Involvement in Title I Schools, 1975, Charles A. Hunter, 35 pages.

Abstract

Evaluation of the Title I
Non-Public School Programs
1976-77

Evaluator: Al Schroeder
Cordelia Alexander

Objectives of the Program: The purpose of the Title I programs in the non-public school setting is to supplement normal classroom teaching with resource, tutor, and/or special training assistance in order to stimulate academic improvement and improve emotional well being of the population served.

Proposed measurable objectives included month for month gains in reading and mathematics standardized test scores from pre-test to post-test in the facilities of Dallas County Boys Home, Buckner Baptist Children's Home, and Juliette Fowler Home. Gains of six months in reading and mathematics were projected for students at Cliff House who were to be in the tutoring program. Gains of five months in reading and mathematics were projected for foster children who were in the Dallas County Child Welfare Program for the full school year. Similar gains were projected in the athletic program at Buckner Baptist Children's Home and in the swimming program at Juliette Fowler Home. Other objectives of these programs which are not empirically measured at this time included emotional stabilization and growth of students, attitude improvement, improvement in communication and interaction with adults, and general physical and mental growth not expected from normal classroom activities.

Purpose of the Evaluation: The evaluation was designed to assess the extent of implementation of the programs and to assist project management in determining the effectiveness of the programs,

Sample: Samples used consisted of administrators of the facilities at Dallas County Boys Home, Buckner Baptist Children's Home, Cliff House, Dallas County Child Welfare, and Juliette Fowler Home, including program facilitators and any personnel in those facilities who were funded through Title I.

Evaluation Design: The process evaluation format consisted of a minimum of two personal visits to each program site during the conduct of the program(s). Interviews with personnel and observations of programs were used to provide process evaluation information. Interviews were, for the most part, informal discussions relating to program implementation and background of personnel. Observations were relatively informal and looked for such things as class structure and class atmosphere. Evaluation questions considered during the evaluation included the following:

1. What were the characteristics of the program funded personnel, the student population, and the implementation sites utilized?
2. Were the programs implemented during the 1976-77 school year according to project plans?
3. To what extent were the objectives of the programs realized?
4. What were some observed indicators of the programs' successes, other than those projected?
5. What program changes were deemed feasible by project management as a result of interim evaluation by Research and Evaluation and/or program management?
6. What were the costs related with each of the programs?

Evaluation Results: Results of the evaluation will be presented separately for each facility and will refer to the previous evaluation questions by number.

Dallas County Boys Home

1. The Dallas County Boys Home houses boys ages 10 to 16 years, who have been considered delinquent or dependent by juvenile authorities. During the 1976-77 school year approximately 80 boys were housed at the site. They had a wide variance in educational ability, and they all attended school at the home. Title I funding provided for a resource teacher to be employed full time at the home to provide individualized assistance to students in reading and mathematics. The resource teacher had a master's degree in elementary education and a variety of working experience.
2. Early in the school year the program facilitator expressed an interest in shifting the Title I resource assistance into a pre-vocational training program, because it was felt that a program of that nature would be more appropriate for the student

population housed there. Before mid-year, instruction by the resource teacher shifted to what was termed "living skills" and included pre-vocational training activities. Plans were made at that time to continue a program of that nature through the year.

3. Test scores for reading and mathematics were requested, but were not provided to this department.
4. Observation of classes indicated that improved communication on the part of students may be a product of the program.
5. Consideration is being given to alternative forms of testing program affects, should the living skills program continue next year.
6. Title I appropriations for the home totaled $14,086.70.
   Title I expenditures through May 31, 1977 totaled $12,110.20.

Dallas County Child Welfare:

1. The Dallas County Child Welfare Office was responsible for approximately 300 foster children living in foster homes in the Dallas ISD and attending Dallas schools in grades kindergarten through twelve. The Title I program allowed a Title I program facilitator and twelve tutors to provide tutoring of foster children in the foster homes after school hours. The number of students tutored varied throughout the year because of mobility factors. The program facilitator made decisions regarding who was to be tutored. The funding also provided for a summer activities program to be conducted by eight of the tutors and two teacher aides during June of 1977.
2. The tutoring program was implemented as planned with an ongoing average of approximately 35 students receiving tutoring during any given week.
3. Test results provided to this department by the program facilitators indicated that the program was successful. Gains were higher than those proposed in both reading and mathematics at almost all grade levels.
4. In the foster homes visited, it was found that both the foster parents and the children appeared to have positive attitudes toward the tutoring assistance.
5. It was felt by the program facilitator that the program is not in need of revision at the present time.
6. Title I appropriations totaled $46,078.00.
   Title I expenditures through May 31, 1977 totaled $28,384.39.

Cliff House:

1. During the fall of the school year, Cliff House was comprised of approximately ten delinquint or dependent children ages 10 to 16 years who lived at the home. A few of the children living at the home attended public schools, the others attended special education classes at the home. Approximately five special education students not living at the home also attended classes there. Title I funding provided for two tutors to assist students at the home during after-school hours.

2,3,4&5. The program was not implemented at Cliff House during the fall, and the facility closed in January of 1977.

6. Title I appropriations totaled $6,273.26.
Title I expenditures through May 31, 1977 totaled $1,555.38.

Buckner Baptist Children's Home:

1. Mid-year records at Buckner Baptist Children's Home indicated that approximately 330 children were housed there. Approximately 250 of the children were attending Dallas Independent School District schools in grades kindergarten through twelve and approximately 80 were attending special education classes at the Buckner Academy, a school for special education students. Title I funds provided a Director of Educational Activities for the Academy, a Physical Development teacher, a tutor, two teacher aides, a Selective Placement person, and a Nurse Supervisor for the home.

2,5. The Director of Educational Activities, the selective placement person, the physical development teacher, the nurse supervisor, and the teacher aides functioned as planned during the school year. Responsibilities of the tutor were shifted from reading and mathematics tutoring to pre-vocational training for academy students and involvement in the physical education program. The tutor teaches two special education classes in the mornings and assists the physical development teacher with physical education classes in the afternoons.

3. Complete test data for reading and mathematics improvements are not available. Data provided which pertains to physical education activities indicated some gain in athletic abilities over the school year.

4. Indications are that the physical education program at the home provided a training program in athletic activities.

6. Title I appropriations totaled $86,967.20.
Title I expenditures through May 31, 1977 totaled $63,976.07.

Juliette Fowler Home:

1. There were approximately 20 to 25 children housed at Juliette Fowler Home for Children. They attended Dallas ISD schools in grades kindergarten through twelve. Two tutors, a teacher aide, and an activity aide were provided through Title I funding to work part-time with students during after-school hours in the areas of reading, mathematics, and other activities such as swimming and arts and crafts.

2. The program was slow in starting and was subsequently reorganized at mid-year. During the spring of the year the tutoring program appeared to function effectively. Records were developed and maintained as to each student's progress in academic activities.

3. Test scores for reading and mathematics were not available. Data provided from students' class records indicated a lack of decline in student achievement in reading and mathematics.

4. Individualized assistance may be providing the students living at the home with a better attitude toward school activities.

5. The tutoring program was reorganized during the school year.

6. Title I appropriations totaled $8,079.50.
   Title I expenditures through May 31, 1977 totaled $2,426.87.

Additional Information:

T177-100-9-5 Evaluation of the Title I Non-Public School Programs, 1976-77, 1977, Al Schroeder, Cordelia Alexander.

Abstract

Evaluation of Non-Public Title I Schools: Diocese of Dallas

Evaluators: Joan Jackson
Cordelia Alexander

Objectives of the Program: The 1976-77 Title I programs on the campus of six non-public schools were designed to give educationally deprived children additional remedial assistance in reading comprehension and an understanding of basic mathematical skills and applications. By the completion of the 1976-77 school year students were expected to demonstrate achievement toward a standard norm of progress. The purpose of the Title I program at Mount Saint Michael was to provide additional reading and math courses to girls who had experienced both academic and emotional adjustment problems within the regular school setting. The goal of the program at Mount Saint Michael stated that the participants would demonstrate a gain of one month for each month of instruction in reading and math. The Title I program at Saint Joseph Center was designed to provide social and academic services to economically and educationally deprived children with social, emotional and behavioral problems. The objectives of this program were to provide: (1) group therapy, personal consultation, or psychological testing to enable children to gain greater insight into their own methods of functioning, (2) cultural activities and events; and (3) special educational experiences.

Purpose of the Evaluation: This evaluation was designed to provide interim and year-end results to project management and staff in order to assess program implementation, needs and the extent to which proposed objectives were realized.

Sample: The sample consisted of: (1) administrators or principals of St. Anthony, St. Mary of Carmel, St. Peters, Holy Trinity, John XXIII, Notre Dame Special and Vocational Rehabilitation Center, Mt. St. Michael, and St. Joseph Center; (2) all personnel funded through Title I which included nine teachers, two counselors, 12 teacher aides and one administrative clerk; and (3) eligible Title I students on non-public school campuses and institutions within the Diocese of Dallas.

Evaluation Design: Data for analyzing these components were obtained through (a) interviews with Title I personnel and school principals or administrators and (b) classroom observations. Interviews were designed to obtain information relative to personnel duties, use of Title I funds and perceptions on the impact of Title I programs on eligible students. Two to three Title I classes were observed on each Title I school site.

The observation checklist was designed mainly to determine the extent of individualized instruction. Each school site was visited four to five times during the year in the evaluation of these programs. The following questions were analyzed:

1. Were the non-public school programs implemented as proposed? What were the indices of this implementation?

2. To what extent were the objectives of the programs realized?

3. What were some observed indicators of the programs' successes other than those proposed?

4. What program changes were deemed necessary by program management as a result of interim evaluation by Research and Evaluation and/or program management?

5. What were the costs associated with the programs?

Evaluation Results: The evaluation results will be presented separately for each non-public school component, referring to the questions analyzed by number.

Diocese of Dallas

1. The program was implemented as proposed. On the campuses of St. Anthony, St. Mary of Carmel, St. Peter, Holy Trinity, John XXIII, and Notre Dame, the Title I teacher devoted at least four periods a day to corrective reading for eligible students.

   Eligible students received supplementary instruction in math from either the Title I teacher or aide on the campuses of St. Mary of Carmel, St. Peter, Holy Trinity, and Notre Dame. A bilingual reading teacher and three bilingual aides instructed Spanish dominant speaking students at St. Mary of Carmel.

   Each teacher worked in laboratories equipped with Title I materials. Title I teacher aides worked with eligible students under the direct supervision of the Title I master teacher, either within the regular classroom setting or in small tutoring sessions. The guidance counselor spent one day a week on the campuses of all non-public Title I schools with the exception of St. Anthony.

2. The program objectives were moderately attained on the campuses of St. Anthony, St. Mary of Carmel, St. Peter,

Holy Trinity and John XXIII. Thirty-seven percent of the 210 students who were pre- and post-tested achieved a gain of at least one year. The following table shows the number of participants in grades 2-6 who gained one year or more in reading as measured by the Iowa Test of Basic Skills.

Reading Comprehension Results for Diocese

Grade Level	Number Participants	Number Pre-and Post-Tested	Gained One Year or More	
			Number	Percent
2	96	60	13	17
3	95	44	21	48
4	103	41	21	51
5	92	42	17	40
6	102	23	5	22

In math, post-test scores for 132 participants in grades 1-6 on the campuses of St. Mary of Carmel and St. Peter indicated that only 20 students achieved the appropriate grade level by the end of the year. Gains in math could not be determined since no pre-test was administered.

3. Classroom observations revealed that better than 65% of the reading classes were based on an individualized teaching approach with individuals or groups of students working on different assignments. Observations also indicated that students were enthusiastic about learning. On the campus of Notre Dame, participants in the Vocational Rehabilitation program (ages 16-21) were observed as they displayed skills in typing, cosmetology, sewing, woodshop and mechanics. Students also received instruction in cooking, grooming and other skills geared to aid students in meeting basic needs.

4. As a result of process evaluations, the following points were discussed with the program manager for future implementation: (a) staff development sessions or activities with Title I personnel, principals, and program management; (b) central coordination of Title I programs on the various non-public school campuses; (c) the need for all staff personnel on non-public school campuses to be made aware of the role of Title I staff members, especially as it pertains to Title I teacher aides; and (d) Title I teacher aides on each campus should be under the direct supervision of the Title I master teacher.

5. A total of $229,177.00 in Title I funds was appropriated for the six non-public schools in the Diocese of Dallas component of Title I. As of May 31, 1977, $162,669.82 had been used with a balance of $66,507.18.

Mount Saint Michael

1. The program was implemented as proposed. Participants were instructed daily for a period of one hour in supplemental language arts and math. One Title I master teacher served the English Clinic and one teacher served the Mathematics Clinic. The guidance counselor conducted group clinics in basic behavioral skills while using an individualized approach to determine behavioral and social problems and/or difficulties.

2. Participants in grades 7-12 were expected to demonstrate a gain of one month per one month of instruction in basic language arts and basic math skills. In language arts, 96 percent met the objective and in math 99 percent made similar gains from pretest to post-test. The following table shows the number of students who gained at least one month for one month of instruction in language arts and math as measured by the Wide Range Achievement Test.

Language Arts

Grade Level	Number Pre- and Post-Tested	Gained One Year or More	
		Number	Percent
7	16	16	100
8	26	22	85
9	26	25	96
10	17	13	76
11	9	8	89
12	11	9	82

Mathematics Gains

Grade Level	Number Pre- and Post-Tested	Gained One Year or More	
		Number	Percent
7	19	19	100
8	15	15	100
9	16	16	100
10	15	15	100
11	10	10	100
12	10	10	100

3. Non-Title I teachers noted that participants had also progressed in their other subjects. The counselor indicated that students, who entered the program at Mt. St. Michael in September, 1976 had made successful social adjustments and that their emotional problems had decreased. Observations of Title I reading and math classes revealed that individualized instruction was widely used and that students felt free in asking questions to gain a better understanding of the assignment.

5. A total of $30,876.00 was appropriated for this component. As of May 31, 1977, $26,707.20 had been used to cover Title I program expenses.

Saint Joseph Center

1. The program was implemented as proposed. The Title I teacher aide supervised study programs for children awaiting enrollment in school, those temporarily released from school due to illness or suspension, and those children in a transient period from regular class to a special education class. Participants were involved in cultural or recreational activities such as swimming, skating, movies, and exhibits. Group therapy and/or personal consultation was provided for those children who experienced a difficult adjustment period.

2. School performance improved due to services rendered by the Title I teacher aide. The in-house study program made return

to a regular school program a smoother transition. Only two students were retained in the same grade. Seventy percent of the residents showed positive changes in attitude and behavior based on evaluations made by caseworkers at St. Joseph Center. Personal consultation and psychological testing provided knowledge and understanding necessary to enable staff members to work more effectively with participants. This information was obtained from the Assistant Administrator of St. Joseph Center.

3. As a result of participation in a choice of varied activities geared to age and interest, the St. Joseph staff members observed a decrease in unhealthy attitudes, the elimination of many negative feelings, and the development of positive coping patterns.

5. St. Joseph Center was appropriated $13,902.00 in Title I funds. As of May 31, 1977, $9,610.34 had been utilized to implement the Title I program.

Additional Information:

T177-038-9-5 Evaluation of the Non-Public Title I Schools: Diocese of Dallas, 1977, Joan Jackson, Cordelia Alexander.

Abstract

Evaluation of the Programmed Tutorial Reading Project, 1976-77

Evaluators: James Reagan Sides
Thomas G. Krueck

Objectives of the Program: Programmed Tutorial Reading (PTR) was a program which provided daily 15 minutes of tutoring in reading to first and second grade students who needed a supplement to regular classroom reading instruction. Tutors were paraprofessionals with at least a high school education and who were carefully trained to respond in exact ways to the actions and responses of the tutees. Materials for the program included a boxed tutorial kit which consisted of a Tutor's Guide, Comprehension and Work Attack (CAWA) Skills Books, basal word kit cards, record sheets, and cover cards. The CAWA Skills Books and the basal texts were used to strengthen reading skills at the preprimer and primer levels.

The objectives of PTR were to enhance tutees' skills in oral reading, comprehension, and word attack. Eleven "item programs" provided instruction in one or more reading subskills (e.g., letter recognition, letter-sound associations, and beginning or ending sounds). The specifically designed lessons consisted of fifteen or fewer items and gradually increased in difficulty of required reading skills. Generally, lessons alternated between several consecutive oral reading sessions from the CAWA Skills Book on basal text followed by lessons in comprehension and word-attack.

Purpose of the Evaluation: The evaluation of PTR was designed to determine whether the program was effective as a supplement to regular classroom reading instruction.

Sample: PTR was located in six schools: City Park, Darrell, Frazier, Harllee, Navarro, Seguin. Any first grader in one of these six schools was initially qualified to receive PTR if his/her composite score on the Metropolitan Readiness Test (MRT) was in the lowest quartile as compared to the national norming group. Second grade students were tutored at three school (Frazier, Harllee, Navarro). These students had been involved in PTR as first graders during the 1975-76 school year. In all, 141 first grade students and 53 second grade students were involved in PTR. Of these, pre- and posttest data were available for 100 first graders and 31 second graders.

1989

Non-Tutored comparison groups were chosen from first and second grade students at the six PTR schools. A first grade student qualified as a control if he/she scored below the 20th percentile (raw score 47) on the MRT. Second grade control students had composite scores less than 100 on the Iowa Tests of Basic Skills (ITBS) pretest. Experimental and control group sizes and group mean pretest scores were as follows:

GRADE	GROUP	N	MEAN	S.D.
1	Tutored	100	33.1	11.3
1	Non-Tutored	198	35.1	7.7
2	Tutored	31	83.6	13.2
2	Non-Tutored	112	87.4	19.4

The groups were not significantly different.

Evaluation Design: Product evaluation data were collected using a simple pre-post design which can be schematically represented in the following manner.

	Pretest	Treatment	Posttest
First Grade			
Tutored	O_1	X	O_2
Non-Tutored	O_1		O_2
Second Grade			
Tutored	O_2	X	O_2
Non-Tutored	O_2		O_2

Involvement in PTR is represented by the treatment X. Observation O_1 is the Metropolitan Readiness Test, Level 1, Form P. Observation O_2 is the Iowa Tests of Basic Skills, Level 7, Form 5.

Process evaluation data, to assess program implementation, were collected during October-November, 1976, and March, 1977. Three or more tutoring sessions were observed with both tutors at each of the six schools. In addition, principal and teacher interviews were conducted.

For product evaluation data, t-tests were computed to determine statistically significant differences between pre- and posttest measures for the tutored and non-tutored group. For the correlation between achievement and attendance, Pearson product moment coefficients were computed. Other product data and process evaluation results were tabulated using frequency distributions and percentages.

The major evaluation questions were:

1. What was the environment of the Programmed Tutorial Reading (PTR) Project?
2. Was PTR implemented as specified?
3. What were the demographic characteristics of the students receiving PTR?
4. Did students who received PTR score significantly higher than control students on the Reading subtest of the Iowa Tests of Basic Skills?
5. What was the relationship between school attendance and progress in PTR?
6. What changes, if any, were evident in the number of students receiving PTR who scored at the chance level on the pre- and posttest measures?
7. What was the reading level status of those second grade students in PTR who had received tutoring at first grade students?
8. What were the cost considerations involved in the implementation of PTR?

Evaluation Results

1. Overall, the implementation environment of PTR was more than adequate. At four of the six involved schools, tutorial sessions were conducted in quiet, secluded areas, such as empty classrooms (City Park, Frazier, Harllee) or conference rooms (Darrell). Two schools (Navarro, Sequin) held sessions in open areas, which tended to be susceptible to distractions. While those tutoring areas located in unused classrooms were more facilitative to the program than the open area locations, in no case was the quality of tutoring affected. The physical surroundings of the sessions were, on the whole, satisfactory. Lighting was adequate, and

room decoration was pleasing. With one or two exceptions, room temperature was comfortable. Room space was never a problem, and every area had sufficient furniture.

Principals and teachers were virtually in unanimous support of PTR, and most were enthusiastic about the value of the program. Principals reported no major problems in the operation of the program. Teachers were very satisfied with the program in relation to classroom activities.

2. In almost every observed tutoring session, PTR was implemented exactly as prescribed by Houghton Mifflin. Tutors were supplied with a timer, which allowed for exactly fifteen minutes per session. Without exception, the tutors correctly completed the Form A Record Sheets. All tutors were careful to speak slowly and enunciate clearly. They demonstrated enthusiasm and gave genuine and generous praise when appropriate. While none of the tutors made any kind of negative response after errors, several of them unconsciously reinforced an error by saying "OK" before attempting to elicit a correct answer from the tutee.

   The tutees themselves were not noticeably happy or sad during the sessions although more children seemed satisfied than dissatisfied. A few children appeared openly to enjoy the session and would smile or laugh when praised. Most of the tutees, however, did not acknowledge the tutor's positive reinforcement.

3. Most of the tutees were ethnic minorities. A breakdown of races for tutees was as follows:

	GRADE			
	1		2	
RACE	n	%	n	%
Anglo	2	1.4	0	0
Mexican-American	11	7.8	4	7.5
Black	128	90.8	49	92.5
TOTAL	141	100	53	100

4. T-tests revealed no significant difference between groups for posttest ITBS reading scores at either first or second grade levels. Results were as follows:

	Tutored			Non-Tutored			
Grade	N	Mean	S.D.	N	Mean	S.D.	T Value
1	100	88.6	20.8	198	92.1	17.8	1.42
2	31	119.0	25.3	112	114.4	24.4	-0.90

Discretion should be used in the interpretation of these scores, in that, for the selection of a comparable control group based on pretest scores, first grade students below the 20th percentile on the MRT and second grade students with a composite raw score of less than 100 were chosen. Unforeseen sample characteristics might have been induced because of this selection procedure.

5. No correlation was found between school attendance and reading achievement. Pearson product moment correlation coefficients were computed for the relationship between total attendance and gains in percentile rank on standardized tests. At the first grade level, the correlations were found to be as follows:

Subtest	r
ITBS Vocabulary and attendance	.0028
ITBS Word Analysis and attendance	.0353
ITBS Reading Comprehension and attendance	.0331

At the second grade level, the correlation between the gain in reading and attendance was computed to be .0209. None of the correlations was statistically significant. Since a correlation of zero usually indicates no interaction between factors, it can be assumed from the present data that since attendance varied only slightly among participants no influence on reading achievement was observable.

6. Changes in chance score frequency for first grade tutees were undetermined because of the lack of correlation between pre- (MRT) and posttest (ITBS) measures. Slightly over one-third (33.6%) of the first grade students socred at the chance level on the MRT. First grade posttest scored at the chance level

and 22.9% for Reading Comprehension. Percentages of pretest chance scores at the second grade level were roughly equivalent to the first grade posttest percentages: 50% for Vocabulary, 7.5% for Word Analysis, and 20% for Reading Comprehension. Posttest measures, however, displayed a considerably reduced percentage of chance scores: 30% for Vocabulary and 0% for both Word Analysis and Reading Comprehension.

7. At the end of two years of PTR, second grade tutees were still generally performing below grade level. A cumulative frequency distribution of the number and percent of second grade students scoring at or above one-half year below grade level displayed the following results:

	Vocabulary		Word Analysis		Reading Comp.	
	n	%	n	%	n	%
Grade Equivalent						
2.2 (one-half year below grade level)	17	45.9	15	40.5	18	48.6
2.7 (at grade level)	14	37.8	6	16.2	8	21.6

More than one-half of the second grade tutees scored below one-half year below grade level. As few as one-sixth (16.2%) scored at or above grade level on the Word Analysis subtest of the ITBS.

8. The total budget allocation for PTR during 1976-77 was $70,000. A breakdown was as follows:

Personnel	$67,297
Materials	2,003
Contracted Services	500
TOTAL	$70,000

At maximum tutoring capacity (i.e., twenty tutees per tutor, two tutors at each of six schools), the annual cost per tutee for Programmed Tutorial Reading amounted to $291.67.

Additional Information:

T177-037-9-1 Evaluation of the Programmed Tutorial Reading Project, 1976-77, 1977, Jaems Reagan Sides, Thomas G. Krueck.

76-871 Evaluation of the 1975-76 Programmed Tutorial Reading Project, 1976, C. LaVor Lym, Pamela J. Holden, 57 pages.

75-588 Evaluation of the Targeted Achievement in Reading Program, 1975, R. J. Costello, G. White, 152 pages.

1975

72-70

Abstract

The School Breakfast Program

Evaluator: Cordelia R. Alexander

Objectives of the Program: The School Breakfast Program was designed to improve the general physical and mental condition of students who (a) originate from poor economic conditions and consequently receive inadequate or no breakfast at home, and (b) spend considerable travel time to reach school.

Purpose of the Evaluation: The purpose of the evaluation was to determine the effects of the School Breakfast Program on student height and weight, achievement, attendance, classroom deportment, and attitude toward school.

Sample: Approximately 441 students who qualified to receive free breakfast at both Stephen F. Austin and Sidney Lanier elementary schools served as the experimental group. The control group consisted of approximately 160 students from Fred Douglass Elementary School; these students exhibited demographic characteristics comparable to the students in the experimental group.

An Attitude-Toward-School Measure was administered bi-annually (fall and spring) to the experimental group and once in the spring to the control group. A similar schedule was followed for collecting classroom deportment data. Weight and height measurements of all students in the study were taken in October, January, and May of the school year. Information regarding achievement as measured by school grades, school attendance, age, sex, and grade level was collected from cumulative records at each school in the study. Attendance at breakfast was checked for one two-week period at both Austin and Lanier elementary schools; it was not feasible to keep this record on a daily basis.

Evaluation Results: Analyses of trends in weight and height measurements, school attendance, attitude toward school, achievement as measured by grades, and classroom deportment did not identify a relationship between participation in the School Breakfast Program and improvement of physical and mental conditions of students. This conclusion was derived from a comparison of students who ate breakfast seven to ten times in the two-week period with other similar students who ate less than seven times during the same two-week period. Comparisons were also made with respect to the control group. The negative implications of such comparisons, however, might be tempered by the fact that teacher attitude toward the School Breakfast Program was extremely favorable.

According to data provided by the Dallas Independent School District Food Services Department, the average number of students eating free breakfast each day was at least half of the full number of students

approved for the free service. At Sidney Lanier Elementary School, the average number of students paying for breakfast was at least one-third of all students served breakfast each day.

Additional Information:

72-70	Evaluation of the 1971-72 School Breakfast Program, 1972, Cordelia R. Alexander, 19 pages.
71-18	Evaluation Design for the Free Breakfast Program, 1971, Cordelia R. Alexander, 18 pages.

SE77-066-3-8

Abstract

Special Education Process Evaluation

Evaluator: Daniel J. Macy

Objectives of the Project: The District special education program attempts to provide appropriate education for every exceptional child. Special education makes use of a continuum of instructional arrangements which range from complete regular classroom instruction to total self-contained instruction in a special campus setting. The program attempts to provide individualized instruction for each student.

Purpose of the Evaluation: The evaluation conducted was a limited process evaluation of the implementation and operation of the special education program. As such, the evaluation yielded only basic information about program operation. Limited comparisons were made with process results from the previous year.

Sample: The sample included the total student population served in special education.

Evaluation Design: The evaluation used a very simple one-shot observational design, and the time of data collection was June 30, 1977. The data source was the special education computerized data base which is maintained by special education staff and research and evaluation personnel.

The evaluation sought to answer the following questions:

1. How many students were served in special education?
2. How does the number of students served compare to the previous year and to national estimates of incidence?
3. What was the profile of the total special education population in terms of grade, sex, ethnicity, and primary handicap?
4. How do the percents of ethnic representation in special education compare to total District ethnic percents?
5. What were the instructional arrangements of students served?
6. How many students were dismissed?

1978

Evaluation Results:

1. Special education served a total of 8051 students during the 1976-77 year. This was 5.78 percent of the total District student population; 5.67 percent was served during the previous year. Since the legitimacy of current national incidence rates is unknown, there is no sound statistical basis for determining if the District is serving the expected number of children.

2. Most District students were eligible for special education by reason of speech handicap, mental retardation, or learning disability. About 60 percent of special student population was in the elementary school level, and about 60 percent was male.

3. The ethnic representation in the special education population is comparable to total District ethnic representation.

	Ethnic Percents		
	A	B	MA
Total District	37.6	46.9	14.3
Special Education	43.4	44.8	11.3

4. The resource room was the most frequently used instructional arrangement, and about one-third of the special students (excluding speech students) attended a regular classroom for more than 50 percent of the day. When speech students were counted, about one-half the special students attended a regular classroom for more than 50 percent of the day. About 22 percent of the students was dismissed from special education.

Additional Information.

SE77-066-9-8 Special Education Process Evaluation, 1977, Daniel J. Macy.

76-890 Special Education Data Base, 1976, Jamie L. Carter, Deborah F. Carpenter, Daniel J. Macy, 22 pages.

Abstract

Description Of The Special Education Data Base 1976-77

Evaluator: Daniel J. Macy

Objectives of the Project: The 1976-77 special education data base was a continuation of the program initiated in the previous year to develop and implement a data base computer file in the special education department. During its second year of operation, the data base, maintained by both Special Education and Research and Evaluation personnel, continued to provide minimum needed information to special education management.

The purpose of compiling and utilizing a special education computer file was two-fold. Firstly, it provided a complete computerized data file that could be updated with new inputs as changes and alterations in data occurred. Secondly, such a file provided a single, all-encompassing computerized programmatic roster of all special education personnel and students in the District for easy access.

Data reported by speech pathologists, coordinators, facilitators, and diagnosticians furnished the information stored in this data base. This information primarily consisted of demographic data about students and teachers needed during the day-to-day routine of special education management. Guidelines, rationale, and specifications for data collection for this ongoing project are explained in Technical Report No. SE77-106-61-8.

A basic function of the 1976-77 data base was to maintain and build onto the existing computer file from the 1975-76 year. Variations of student and faculty rosters, current to the week of distribution, were given to special education coordinators and other special education administrators, corresponding to six-week District reporting periods. Generation of current listings was helpful in that the procedure provided a central reference listing of teachers and students for all special education managers.

A major objective in the data base was the generation of statistical tabulations needed for the Annual Special Education Statistical Report to the Texas Education Agency. The set of computer routines developed during the 1975 spring semester by data processing personnel provided the statistical tabulations and tables for completion of the Annual Statistical Report.

Sample: The sample for the data base included the special education staff (N=693) and all the students who received special education services (N=8,051) during the 1976-77 school year. There were ten identifiable groups of special education teachers:

1) Special education management staff.
2) Teachers of special class units on DISD campuses.
3) Speech pathologists.
4) Teachers of special class units at non-DISD campuses.
5) Educational diagnosticians.
6) Non-DISD teachers at non-DISD campuses (contracted services).
7) Teachers in the regional deaf program.
8) Teachers in the blind-visual program.
9) Teachers in the hospital-homebound program.
10) Teacher aids.

(Faculty in group six were not included in the data base.)

Evaluation Design: The concept of an evaluation design was not generally applicable to the data base study, but the following three evaluation questions provide a framework for reporting results.

1. What parameters described the special education data base in terms of data base definition and data collection procedures?

2. What kinds of information were available to DISD decision-makers as a result of the development and implementation of the data base?

3. What were the major components of the plan for implementation of a complete special education data base?

Evaluation Results:

1. The special education data base in its second year of operation, was successfully utilized to generate information needed by special education management in the day-to-day operations of the program.

2. Information was available from the data base for completion of the Annual Special Education Statistical Report to the Texas Education Agency. Special education managers also made use of student and teacher listings as generated periodically throughout the year. These listings provided a central information source that was available for quick reference and that was the most current possible.

3. The following rosters were given to designated central staff.

   1) Master Organizational Data (Faculty) File:
   Listing of faculty by each area location.

   2) Master Organizational Data File:
   District listing of faculty in alphabetical order.

3) Student Data Base File:
   District listing of students in numeric order according to DISD ID number.

4) Student Data Base File:
   District listing of students in alphabetical order.

5) Student Data Base File:
   Listing of students by campus location within each area.

6) Student Data Base File:
   Listing of students by area location in alphabetical order.

4. A computerized method of class scheduling for the 1977-78 school year was implemented to expedite the special education coordinators' process of arranging class rosters. A plan, which minimized work time considerably, was designed and executed with the close cooperation of the coordinators and their facilitators.

5. The development and implementation of a two year projection plan for the special education data base was considered necessary since it was thought that the data base was not yet fully developed in terms of potential computer applications and management information needs. Although preliminary steps were taken, Public Law 94-142 made reporting needs too tentative to implement a long term plan. Refer to Research Report SE77-106-63-8 for details in terms of this area.

Additional Information:

SE77-106-9-8 Description of the Special Education Data Base 1976-77, 1977, Daniel J. Macy, Karen Cortell Reisman, Michael A. Holt.

76-890 Special Education Data Base, 1976, Daniel J. Macy, Jamie L. Carter, Deborah F. Carpenter, 22 pages.

SE77-063-3-8

Abstract

Evaluation of Zero Reject-Dallas
Child Find Component 1976-77

Evaluator: Daniel J. Macy
Deborah F. Carpenter

Objectives of the Project: During its second year, the project sought to reduce by June, 1977, the number of unserved mentally retarded, physically handicapped and emotionally disturbed students by 250 through the development of an information campaign which utilized community program presentations, human service agency visits, physician newsletters, and day care center contacts.

In an effort to determine the feasibility of continuing to utilize a canvas as an integral part of the child find effort, a house-to-house canvas was conducted in targeted low-income areas of the District.

The Developmental Evaluation Scale (DES) was used to screen all incoming questionable referrals by completing a mini-scale or a full DES to determine the appropriateness of referral. The project further sought to study the feasibility of utilizing the DES in a public school setting by conducting a research study to investigate its user acceptance and the psychometric characteristics of the DES.

Cases referred to the project by all referral sources were to be reviewed, release statements obtained from parents, all available information resources collected and the cases prepared for staffing by the District Admission, Review and Dismissal Committee.

The project was to conduct a cooperative pilot developmental center program at two sites for twelve profoundly handicapped students with MHMR providing the training and curriculum and the District providing the supervision and staff.

The second year of the project continued with its development of a computerized information system to track the placement of students and to aid in long-range planning.

Sample: Random sampling techniques were used for the physician survey and the developmental center survey. The sample for the Physician Questionnaire was composed of 30 randomly selected area physicians whose names appeared on the project newsletter mailing list and who were available for contact. The sample for the Developmental Center Curriculum Questionnaire was composed of eight teachers from the District's eight developmental centers. Six of the teachers were selected at random while two were from the pilot centers.

Nonrandom sampling techniques were used for the agency survey, the DES and the RADEA survey. The sample for the Community Service Questionnaire was composed of 28 human service agency personnel and day care center personnel

from agencies visited by project staff during the year and who were available for contact. The sample for the DES User Questionnaire consisted of 27 persons trained as interviewers and/or interpreters of the DES and who responded to the questionnaires. Responses were obtained from 13 interviewers and 14 interpreters. The sample for the RADEA Training Questionnaire consisted of the two pilot developmental center teachers.

Evaluation Design: The evaluation design utilized for all studies was the "One Shot Case Study" design. The following schema represents the designs utilized for each study.

pilot development center teachers	_ X 0_1 _ _ (N = 2)
regular developmental center teachers	_ X 0_1 _ _ (N = 6)
agencies/physicians	0 _ X_1 _ _ (N = 28/N = 30)
DES	X _ 0_1 _ _ (N = 27)

Data obtained from the RADEA (pilot centers) survey and the agency and physician surveys, were collected via telephone interviews. Data relative to developmental center curriculum survey were collected via personal interviews while the data for the DES survey were collected through a mail-out questionnaire.

Evaluation Results:

1. The project reportedly averaged an estimate of 18 telephone calls per day or 360 calls per month. In comparison to last year's data where the project reportedly logged 345 calls from the latter part of January through June, it appears the project telephone number is being much more widely utilized this year. From July 1, 1976 through June 30, 1977, 226 referrals were received through the Project Zero Reject Child Find office.

2. The most successful means of locating unserved, handicapped children appeared to be through calls from parents, DISD school personnel and various community agencies, all of which accounted for more than three-fourths of the referrals received during that period. DISD school personnel appeared to be an increased source of referrals as the number (percentage) attributed to this source last year has doubled for this year. The house-to-house canvas conducted in the five school areas appeared to be an ineffective means of directly locating the handicapped population; however, project management felt the canvas was valuable in terms of demonstrating a commitment to locate the unserved, handicapped child.

3. Various community agencies throughout the Metroplex have been instrumental in providing the child find telephone number to more than one-half of the referents. This involvement on the part of area agencies is believed to be a direct result of project staff visits to various human service agencies throughout the Metroplex. Printed media displaying the child find telephone number also resulted in a number of referrals to the project, as well as the house-to-house canvas which appeared to be somewhat more effective in terms of indirect referrals to the project. DISD school personnel also contributed significantly in providing the child find telephone number to referents.

4. The house-to-house canvas was conducted in five lower income areas with an average of one-third of the doors being answered in each area. The decrease in the number of doors answered this year as compared to last year's figures is reportedly attributed to the rise in the employment rate and the number of elderly persons in these areas who were hesitant to answer their doors.

5. As of June 30, 1977 the project had received referrals on 226 handicapped persons. Eighty-three percent of those located (N = 187) were from the target population of out of school unserved, handicapped children, which would indicate that the project is indeed locating the intended population. Last year the project received a total of 106 referrals of which, approximately 83 percent (N = 88) were from the target population. These figures would indicate the project has been markedly consistent from last year to the current year, in locating its intended population.

6. The gender and ethnicity percentages within the located group were as expected and did not indicate any disproportionalities in referrals received. The age distribution of referrals show that over three-fourths of the referrals were children at or below the elementary school level. The present data are markedly consistent with data obtained last year in these areas.

7. Of the 130 referrals that had their placement determined as of June 30, almost all were children with moderate to severe handicapping problems. Mental retardation accounted for nearly one-third of the confirmed handicaps reported with the majority being on the trainable level. The area of mental retardation accounted for about one-third of the "suspected" handicaps reported for last year's referrals as well.

8. The extent of involvement data show that about 68 percent of the 133 cases assessed in these areas would be considered severe cases. It was thought that service delivery to these children would require resources not typically available in the routine operation of the special education program. Only about 6 percent of the referrals were considered "normal" in all categories on the extent of involvement scale.

9. The project has been successful in establishing placement for almost 60 percent of the children referred. Last year the project placed a little over one-third of the children referred. The establishment of the PZR Screening Committee and appraisal team is believed to have had a significant influence on the increase in the number of children being placed. As of June 30, the remaining referrals were either being processed or had been referred outside the District.

10. Those children who were placed waited an average of 10 weeks from the time of referral to placement. Last year, the average amount of time from referral to placement was 8.1 weeks. However, this increase did not seem unreasonable when one considers the fact that this year the project received three times the number of referrals it received last year.

11. The average case remained in process 20.3 weeks. The average time for these cases to be reviewed was 6.7 weeks while the average amount of time between case reviews and June 30, was 14.4 weeks.

12. The establishment of an online computer terminal in the project office greatly facilitated the input of information into the data base. This resulted in the data base becoming a more internalized function of regular project activity. Interface between the project data base and the District-wide special education data base will permit continued identification of project referrals within the special education data base. The data base greatly facilitated generation of reports required of the project and assisted in monitoring the processing of referrals.

13. The vast majority of the sampled agency personnel were aware of the appropriate referral procedures and did not report requiring any additional information or explanation of the process.

14. Over two-thirds of the agency respondents gave the appropriate response to the legal age limitations of the program, which represents an increase of awareness in this area over last year when about one-half of the respondents gave the appropriate response. Those who gave inappropriate responses were believed to be considering the compulsory age limits for "normal" school children.

15. The majority of the agency respondents said a Texas public school could not legally refuse to accept the handicapped child for schooling. This also represents an increase of awareness in this area as last year less than one-half of the respondents gave the appropriate response. However, it is believed a "should" condition was imposed on this item by many respondents whether the appropriate response was given or not.

16. In terms of physicians, over one-half of the sampled respondents indicated they received the project newsletter. All of the respondents who received the project newsletter indicated that the newsletter was informative and helpful in providing some insight into the nature of the Child Find program.

17. Less than one-half of the physician respondents indicated awareness of the appropriate referral procedures with over three-fourths of the respondents indicating they did not require any additional information or explanation of the process. However, it is believed that apparent contradiction in the above results are possibly due to the respondents considering their informational needs at that particular point in time.

18. The physician data reflect a lesser degree of awareness over last year's data (from parents) and for agency respondents in terms of the legal age limitation items as only one-fifth of the respondents gave the appropriate age boundaries. This difference is believed to be a result of the difference in professional backgrounds and the amount of time and efforts one may have (or not have) to devote to this area of interest.

19. The majority of the physician respondents said a Texas public school could not legally refuse to accept the handicapped child (who is of legal age) for schooling. The data are consistent with data obtained from the agency personnel and also represents more awareness in this area over last year's data. However, it remains the belief of project staff that a "should" condition may have been imposed on this item by many respondents regardless of the response chosen.

20. The experimental curriculum, RADEA, was widely accepted and highly recommended by the pilot developmental center teachers. The individualization of the program, its organization, the use of behavior management techniques and the sequencing of developmental tasks were cited as major strengths of the program. The major deficits of the program were said to be the lack of sufficient materials to operate the program, vagueness of directions and the need for more group oriented activities to offset the large number of individualized activities.

21. Approximately one-third of the six teachers in the other District developmental centers indicated that they had no formalized program to speak of, while the remaining two-thirds indicated using a variety of instructional programs rather than one specific program. The majority of the teachers indicated having a structured daily schedule of activities for their students. Over three-fourths of the teachers expressed pleasure with their current programs; however, needed changes listed include having better prepared teachers in the developmental centers, more frequently updated records, have students evaluated more often, not to place first year teachers in

the developmental centers, include physical therapy as a part of the program and a variety of other individual wants and needs. All of the teachers felt their programs were benefitting their students with some, however, expressing a need for such programs as RADEA to provide the necessary development tasks that so many of the students need.

22. The student information data indicate that the project's pilot developmental centers are serving a larger average number of students per center than the other District centers. The average age of the students is approximately the same for both groups. The ethnicity data indicates that there is a close degree of consistency between the groups regarding the ethnic breakdown of the students with no one ethnic group being over-represented in either group of students. In terms of gender, there were no significant differences noted.

23. In terms of handicapping conditions across students (rather than within individuals), it appears that both the pilot centers and the regular centers are serving students with many of the same handicapping problems.

24. The extent of involvement data across students in the pilot centers and the regular centers indicate that the majority of the students display "normal" involvement in the areas of vision and hearing with approximately one-third of the students having "normal walking" ability. However, 15 percent of the students are in wheel chairs with another 17 percent who can only scoot, crawl or roll. Over one-fifth of the students have hearing and vision problems without a corrective device while over one-half of the students have limited talking ability and articulation difficulties. The self-care data indicate that the majority of the students have deficiencies in the areas of toilet training, dressing, and hygiene. The final category of maladaptive behavior indicates that less than one-half of the students display no maladaptive behaviors; however, at least one-third of the students are said to have tantrums with nearly as many also directing their maladaptive behaviors toward others.

25. The extent of involvement data assessed across items for individual students at both the pilot and regular centers, in terms of the severity of the handicap, indicate that over three-fourths of the students enrolled in the pilot developmental centers are "severe" cases as compared to less than two-thirds of the students enrolled in the other District centers who are considered "severe" cases. It is believed that service delivery to these children would require resources not typically available in the routine operation of a special education program. Only 9 percent of the students, all from the other District centers, are not considered an unusual problem in the typical special education classroom as they were

described as being "normal" in the majority of the involvement areas. Overall, the pilot developmental centers are serving a larger number of "severe" involvement cases than the other District centers.

26. In terms of the Developmental Evaluation Scale (DES) analysis, data relative to actual DES scores were obtained from the records of 46 project referral cases, of which 22 contained data from the mini-scale, 16 from the full scale and eight from the revised scale. Scores were based on the number of items responded to "appropriately." Actual scores ranged from 6 to 30, where a score of 31 was considered a "perfect score." The approximate overall mean of the scores was 21. The variance of the scores was 5.44. Data represent somewhat of a skewed distribution.

27. In terms of DES item analysis, the data indicate that the "appropriate response" was obtained for the majority of the cases assessed for all items except five items (No. 20, 21, 25, 30, and 31). For two of the items (20, 21) only 50 percent of the respondents had given the "appropriate response." For one item (25), over 60 percent had responded inappropriately. For the two remaining items (30, 31), less than one-third of the respondents gave the "appropriate response."

28. Results of responses obtained from the DES User Questionnaire for interviewers reveal that, for those who responded to the questionnaire, the average number of scales administered was four each. The average length of an interview was reportedly 55.6 minutes. Over 60 percent of the respondents indicated a "high" degree of reliability in the data gathered with the scale. Nearly 40 percent indicated that the interviews "always" appeared appropriate for the types of problem(s) in question.

29. Approximately 88 percent of the interviewers who responded to the questionnaire indicated that they preferred to administer the DES via personal interview rather than via telephone. Three-fourths of the respondents indicated that they considered the DES to be a worthwhile instrument for public school assessment. The problems cited by interviewers were basically individualized and were generally in terms of the parents who responded to the scales. General concerns cited by the interviewers were in terms of the length of the scale, time involved in its administration and the answer sheet format.

30. Results of responses obtained from the DES User Questionnaire for interpreters reveal that, for those who responded to the questionnaire, the average number of scales interpreted was five each. The average amount of time for scale interpretation was approximately 88 minutes per scale. Approximately 46 percent of the respondents indicated that the format of the answer sheet provided for easy interpretation. As an aid to the interpretation phase,

1989

respondents indicated needed changes in terms of the length of the scale and a more complete answer sheet with the areas of questioning designated as well as developmental information provided.

31. Nearly three-fourths of the interpreter respondents indicated that they were developing a write-up of the scale as taught during the training workshop. In terms of the users of the DES breakout information and the final report, it appears that public school personnel were the most frequent users of the information. Interviewers further indicated that the DES final report was most often used in terms of an adaptive behavior scale, programming, determining baselines and estimating developmental ages. In terms of the types of handicapping conditions for which the scale appeared most useful, results show that the severe and profoundly handicapped group was cited most often.

32. Almost three-fourths of the interpreter respondents indicated that they felt the DES was a worthwhile instrument for public school assessment purposes. Interpreters mentioned problems they encountered in terms of the amount of time involved in the interpretation of the scale, its length, the lack of norms for the scale, and the cost effectiveness of the scale.

33. In terms of the demographic student data obtained from those scales administered by project staff (which were used in the DES score analysis), the majority of the students assessed with the scale were male (approximately 65 percent) and Black (approximately 57 percent). The average age of the students was 5.4 years.

34. Student information obtained from the DES questionnaires reveal that nearly 56 percent of the scales administered by interviewers were for male students, with 50 percent being Anglo. Approximately 65 percent of the students were between zero and five years of age. The most frequent problem of the students encountered by interviewers were in the areas of physical handicaps and speech. Interpreters who responded to the questionnaire indicated that the most frequently occurring problem for the students on the scales they had interpreted were in terms of toileting and communication followed by the self-help skills. (These data were obtained from scales administered by non-District personnel).

35. Overall project implementation was good. Virtually all activities were completed with the exception of one. However, the fact that this particular activity (1.6) was not completed was neither due to negligence nor oversight on the part of project staff but rather a result of an effort to avoid the duplication of efforts as Region X was in the process of developing a similar document. A number of activities were designated as "continuing" as these activities continue beyond the end of the project year.

Additional Information.

SE77-063-9-8 Evaluation of Zero Reject-Dallas Child Find Component 1976-77, 1977, Daniel J. Macy, Deborah F. Carpenter.

76-891 Project Zero Reject Data Base, 1976, Daniel J. Macy, Deborah F. Carpenter.

76-889 Evaluation of Project Zero Reject, 1976, Daniel J. Macy, Deborah F. Carpenter, 93 pages.

75-598 Project H.E.L.P. Data Base, 1975, James A. Baker, 18 pages.

SE77-065-3-8

Abstract

Evaluation of Project HELP System-wide First Level Screening 1976-77

Evaluator: Jenci J. Kocsis
Daniel J. Macy

Objectives of the Project: The objectives of this program were to continue a data base established in 1974-75 of potentially high risk children at the kindergarten and first grade level. The data base would be dynamic and enable District management to access information on those children at the early childhood level who could have problems in school at later ages affecting their learning potential.

This report represents a summary of information from regular classroom teachers', school nurses', and speech clinicians' perspective that indicated those kindergarten and first grade (K-1) children who needed to be observed for the possibility of intervention process being rendered as soon as possible. The information in this report would mainly consist of demographic information and high risk indicators. An analysis of high risk and non-high risk students' Metropolitan Readiness Test scores was made to determine which screening instrument was the best predictor of students' actual achievement in school.

Data gathered by teachers, school nurses, and speech clinicians furnished the information stored in this data base. The procedures and screening instruments used in this project can be found in Interim Report No. SE77-065-51-8, SE77-065-52-8, and SE77-065-53-8.

Sample: The sample for the major part of this report included the District's kindergarten and first grade population and those K-1 teachers, school nurses, and speech clinicians who worked with this population.

The educational screening population consisted of 18,418 K-1 students from which 3,580 were marked high risk; health screening population consisted of 9075 kindergarten students from which 808 were marked high risk; and language screening population consisting of 16,236 K-1 students from which 5166 were marked high risk.

Evaluation Design: A series of observations presenting different subgroups of the high risk population was made.

The more general form of the design might be thought of as:

$$O_1 \ldots\ldots O_3$$

O_1 = Educationally high risk

O_2 = Health high risk

O_3 = Speech high risk

More specifically, the most criticaly high risk indicators consisted of the following observations.

$$O_1 \; . \; . \; . \; . \; . \; O_{10}$$

Education

O_1 = "Much below average" response on selected educational items

O_2 = Academic problem

O_3 = Behavioral problem

O_4 = Academic and behavioral problem

Health

O_5 = Visual acuity problem

O_6 = Hearing acuity problem

O_7 = Significant medical problem

Speech

O_8 = Articulation (major problem)

O_9 = Language (major problem)

O_{10}= Non-fluencies (major problem)

The study investigated the following evaluation questions:

1. How did the percent of students flagged high risk in the project compare to the District's profile by grade, sex, and ethnicity?
2. What are the distribution characteristics of the high risk indicators in relation to school areas by ethnicity in response to the total population?
3. What is the incidence of kindergarten and first grade students relative to being listed on the Plan A data base as of May, 1977?
4. What were the system-wide testing percentile rankings on a sample of kindergarten and first grade students who were screened?

Evaluation Results: A brief summary of the major findings of the 1976-77 Help screening is given below.

1. The results of the study show that of the 18,418 students who were screened by the teachers, 3580 were designated high risk (19.4%).

2. The nurses indicated that 808 (8.9%) kindergarten students had health problems from the 9,085 children who were screened.

3. The number of students marked high risk by the speech clinicians was 5,166. This represents 31.8% of the 16,236 K-1 students who were screened.

4. Results of the three screenings show that the percent of students marked high risk are comparable by grade, sex, and ethnicity to the total number of students in the target population.

5. The high risk samples are also comparable by ethnicity in each sub-district.

6. In relation to the Teacher Checklist of Development, Reading Readiness skills were marked as "much below average" for 20.3% of the high risk sample, followed by Writing Readiness skills - 17.6%, and Math Readiness skills - 15.8%. Refer to Interim Report No SE77-065-51-8 for more details in terms of this area.

7. From the high risk samples, 12.8% of the educationally high risk sample, 8.7% of the health high risk sample, and 10.8% of the language high risk sample were on the Plan A data base as of May, 1977.

8. The educationally high risk children scored considerably lower on the Metropolitan Readiness Test (MRT) than the non-high risk sample. Of the high risk sample, 76.1% fell below the 20th percentile, whereas 42.5% of the non-high risk sample fell below the 20th percentile.

9. In the health high risk sample, the students scored somewhat lower on the MRT than the non-high risk students. Of the high risk sample, 64.9% scored below the 20th percentile and 59.1% of the non-high risk sample scored below the 20th percentile.

10. The difference between the MRT scores of the high risk and non-high risk samples in the language screening was of practical consequence, but the difference was less than that obtained in the educational screening data. Of the high risk sample, 58.6% scored below the 20th percentile, whereas 40.6% of the non-high risk sample scored below the 20th percentile.

11. In the 1976-77 HELP screening, the educational screening data which was provided by the classroom teachers were the closest match with performance on the MRT.

Additional Information:

SE77-065-9-8 Project H.E.L.P. Results of the Educationally High Risk Screening Program, 1977, Jenci J. Kocsis.

76-887 Continuation of Project H.E.L.P. Phase I, 1976, Sharon C. Kosinski, Jenci Kocsis, 65 pages.

76-888 Project H.E.L.P. Follow-up, 1976, Sharon C. Kosinski, 74 pages.

75-598 Project H.E.L.P. Data Base, 1975, James A. Baker, 18 pages.

75-597 Project H.E.L.P. 1975, 78 pages.

74-309 An Empirical Study of the Myklebust Quotient, 1974, Daniel J. Macy, 12 pages.

SE77-064-3-8

Abstract

Evaluation of Project KIDS
(Kindling Individual Development Systems)

Evaluators: Jamie L. Carter
Daniel J. Macy

Objectives of the Project: Project KIDS (Kindling Individual Development Systems) is a DISD model program for handicapped infants, toddlers, preschool children and their families. The program, which is financially supported by the Bureau for the Education of the Handicapped in the U. S. Office of Education, is part of a nationwide network of early childhood projects for the handicapped. The project serves developmentally delayed and physically handicapped children from 0-60 months of age, with services delivered through three methods: a home-based training program, center-based infant stimulation classes, and school-based early childhood class units. Project KIDS attempts to integrate the child's parents into the instructional role in cooperation with project staff. The administration and organization of the project is built around four components: children, parents, staff development, and demonstration/dissemination.

The major objectives are:

1. to improve development or function of children in the identified area or areas of delay.
2. to deliver instructional service through the cooperative efforts of project staff and parents through home visits, small group sessions, or public school early childhood classes.
3. to develop and utilize a parent self-appraisal inventory as a means of identifying parent needs in the area of parenting handicapped children in terms of the cognitive and affective domains.
4. to develop and implement cooperative plans for individual parent training activities as the primary vehicle for improving needs identified in the self-appraisal inventory.
5. to develop and utilize a staff survey instrument as baseline curriculum document where competencies and skills are interfaced with survey items.
6. to develop and distribute information packages on key dissemination products and to conduct demonstration activities.

Purpose of the Evaluation: The evaluation sought to provide a comprehensive evaluation of project implementation and effectiveness. As such, the evaluation specified process and product evaluation questions within the components of the project.

Sample: The samples selected for data collections included 80 to 100 percent of the sample populations. The numbers of children served in the three instructional arrangements were:

Home-based		30
Center-based		13
School-based (early childhood)		50
Total	N =	93

Evaluation Design: The study was primarily cross-sectional, but did include pre-post observations for children and staff. The following schematics give the design of the study for each major group observed. In the schematics, X represents the application of a treatment (i.e., home-based instruction, parent meetings, etc.), and 0 represents observations (i.e., data collection).

Children X 0_1 X 0_2 (N = 39 , objectives mastery)

0_1 X 0_2 (N = 15, developmental progress)

The above schematic shows that there were mid-year and posttest observations for children in terms of instructional objective mastery, and there were pre-post observations for 15 school-based children on the developmental measure (McCarthy Scales).

Parents X 0_1 X (N = 49, parenting needs assessment measure)

X 0_1 X (N = 29, child expectations measure)

X 0_1 (N = 32, project reaction)

The above schematic shows that the measures of parenting needs and child expectations were completed by parents near mid-year and that the project reaction questionnaire was completed at posttest.

Staff 0_1 X 0_2 (N = 10, staff development measure)

1997

The above shows that the staff development measure was administered on a pre-post schedule.

Other data regarding project operation were collected from project records as needed throughout the year.

The evaluation sought to answer the following major questions:

1. How many children were served in Project KIDS?
2. What demographic characteristics described the population of children and their parents?
3. What was the instructional history of children served?
4. What were the areas of delay and the instructional objectives specified in the Mini Activity Plans (MAPs)?
5. What was the extent of instruction received by children?
6. What time constraints were needed for children to master the instructional objectives?
7. What was the observed improvement, if any, in the areas of developmental delay?
8. What were the needs reported by parents in a self-appraisal inventory?
9. What was the extent of agreement between parenting needs reported by parents on a self-appraisal inventory and parenting needs of parents as seen by project staff?
10. What progress was made in meeting identified needs of parents?
11. What was the reaction of parents to the project?
12. What was the extent of agreement between parental expectations of the child and expectations of the child as judged realistic by professional personnel?
13. What were the staff competencies identified by project staff and what was the observed improvement in staff competencies?
14. What were the demonstration/dissemination activities of the project?

Evaluation Results:

1. The project served a total of 93 children; 59 of these were male, and 34 were female. The ethnic representation was 36 percent Anglo, 46 percent Black, and 18 percent Mexican-American. The age range of children in the home-based component (N=30) was one to thirty months; in the center-based component (N=13) the age range was 15 to 47 months. In the school-based component (N=50) the age range was three through five years.

2. In most cases, children served were multiply handicapped. The most predominant handicap conditions were cerebral palsy and severe retardation. Other conditions were varied and included such things as brain dysfunction, congential anomolies, hydro- and macrocephalic, etc.

3. Demographic information about parents in the school-based component was not available, but information about remaining parents showed that in 72 percent of the families, children resided with both parents. The estimated house valuations of parents ranged from $5,000 to $350,000. Educational levels ranged from elementary school through college.

4. The project was successful in providing two teacher instructional sessions per week for each child. The project was successful in involving parents in a primary instructional role for students, at least as measured by estimated instruction time. The total estimated parent instructional time provided to children was 4,910 hours. There was the expected balance between teacher and parent instructional time as related to the home and center-based components in that teachers assumed a greater proportion of instruction in the center-based component.

5. The average estimated parent instructional time for both the home and center-based components was about the same (129.3 and 119.0 hours per child), but the average teacher instructional time was greater for the center-based component (49.0 hours) than for the home based (29.1 hours).

6. In general the content and emphasis of project instruction, as embodied in the MAPs, appeared to meet project goals and expectations. The gross motor area was the area of emphasis in the home-based component, and cognitive/language was the emphasis in the center-based component. This matched the age of children in the two components.

7. There was an overall average of 13.4 objectives (MAPs) assigned per child, and 80 percent of the children completed one or more objectives. One-third of the total 522 objectives assigned were completed. The number completed was greater in the center-based

component (44.4 percent) than in the home-based component (28.8 percent). While the self-help area had the fewest assigned objectives, it also had the most completed proportionally (56 percent).

8. The average completion rate for individual children was about one objective per month, but the completion rate (defined as the number of completed objectives divided by the number of months in the project) was greater (1.12) for the home-based component than for the center-based (0.81). There was considerable variability among children in terms of completion rates (objectives completed per month), and the range in rates was 0.0 to 6.00 objectives per month. There was no statistically significant relationship between completion rate and the estimated parent instructional time or length of time in the project. MAPs in the cognitive-language area generally required the least time to complete.

9. Pre-post measurements of children in the school-based component (McCarthy Scales) showed that several students in the program were making substantial gains from pretest to posttest. Eight children or a little over 50 percent of the sample increased in age equivalent by four to 15 months. Five of these children increased their cognitive scores more than expected with an average of 11.2 months gain in age equivalent over a period of only seven months.

10. Of the other seven children in the sample, one score increased slightly, one score decreased slightly, and five scores were below the norms in both the cognitive and motor scales. Some increases were measured in the raw scores below the norms, but were uninterpretable because the scores were too low for the scale's standardized norms.

11. More children exhibited increases in cognitive performance (N=9) than in motor performance (N=4).

12. As would be expected, several students in the sample were experiencing extreme developmental delays as measured by the McCarthy Scales. Five of the children had cognitive scores beyond three standard deviations below the mean, and eight students had motor scores beyond three standard deviations below the mean. These scores were below the one-percentile level.

13. Needs assessment data from parents found that parents identified their needs in the areas of knowing how and where to get help for the child; having awareness of the child's limitations and strengths; understanding the child's disability and special needs resulting from the handicap; and giving firm and consistent discipline to the child.

14. Parents expressed strength in the areas of loving the child and letting the child know that he is loved; accepting the child as a unique and valuable individual; giving affection to the child

through touching or physical contact; and taking an active role in planning and caring for the child.

15. Some of the needs identified by parents would be applicable only to a parent of a handicapped child, but the parents' expressed strengths which could be applicable to any parent whether the child was handicapped or not.

16. Parents of the younger children (age 0-3 years) and parents of the older children (age 3-6 years) expressed similarities in their needs and strengths ($r = .61$). The two groups of parents also expressed some specific differences in their needs and strengths, but these differences were attributable to the age level of the children.

17. Parents rated themselves significantly stronger in their competence than did the teachers' ratings of the parents ($p \leq .01$). All of the parents' self-reports and a majority of the teacher perceptions rated the parents at an overall competence level of average or above. In comparing the self-reported strengths and needs of parents to teacher perceptions of the parents' strengths and needs, overall agreement was relatively low ($r=.36$). There was much variation in the amount of parent-teacher agreement, ranging from perfect agreement in overall scores to very low agreement.

18. Investigation of parent expectations of their child's developmental progress found that parents were equally optimistic in both the motor and cognitive domains, but teachers were more optimistic in the motor domain. Parents were also more optimistic about their child's rate of development progress than teachers. The overall agreement between parents and teachers about the child's rate of developmental progress was relatively strong ($r=.67$).

19. The reaction of surveyed parents to the Project KIDS program was highly favorable. Results from the Parent Reaction Questionnaire indicated that a majority of the responding parents held favorable opinions about all aspects of the program, while the other respondents were favorable to most of the aspects of the program. Sixty percent ($N=15$) of the parents made favorable responses to every item on the questionnaire. Overall, the other 10 parents gave positive opinions about the program, but made a limited number of complaints about specific aspects. In examining individual questionnaires, no parents held an unfavorable opinion of the overall Project KIDS program.

20. Staff competency areas included special education legislation, educational appraisal and assessment, lesson development and MAP writing, child development, and parent assistance. A total of 20 competencies was specified. Pre-post objective test results showed significant gains by staff members, and dramatic improvement for selected individual staff members. Results of

staff self-assessment measurements correlated well with objective test scores. There was a highly positive staff reaction to staff development activities.

21. The number and scope of the demonstration and dissemination activities can be judged to be extensive, especially since Project KIDS has not yet entered its designated year to emphasize demonstration and dissemination. According to project staff, all five dissemination packets will be complete and ready for dissemination during the coming year, which begins July 1. In addition to the dissemination packages, activities included personal contacts, media releases, in-service training sessions, advisory board sessions, and conference and workshop presentations. A total of 47 such activities was conducted from January, 1976 through June, 1977.

Additional Information:

SE77-064-9-8 Evaluation of Project Kindling Individual Development Systems 1976-77, 1977, Jamie L. Carter, Daniel J. Macy.

SE77-067-3-8

Abstract

A Study to Develop Testing for Achievement and Attitude of Special Education Students

Evaluators: Daniel J. Macy
Sharon C. Kosinski

Objectives of the Project: This study was undertaken in order to determine the best way of measuring achievement (reading and math) and attitudes of special education students. The study investigated alternative individual measurement strategies relative to a subpopulation of students who are capable of performing in a testing situation.

Purpose of the Evaluation: The evaluation was conducted as an investigation into the state-of-the art in testing special education students. It was thought that such information would be useful in proposing basic ideas for the possible development of systematic testing of selected District special education students with respect to attitudes and achievement.

Sample: The sample for investigation of performance of special education students in the District's System-Wide Testing Program included all students contained in the February, 1977 version of the special education computer file whose primary handicap was retardation, emotional disturbance, speech, learning disability, minimal brain injury, or orthopedic/other health impairment and who were contained in the System-Wide computer test score files for the fall semester. The sample size was 2,239.

Evaluation Design: The evaluation used a very simple one-shot observational design for the collection of System-Wide test scores. The data sources were the System-Wide test score computer files (MRT, ITBS, ITED) and the Special Education student computer file.

The evaluation design might be depicted as follows:

$$-\frac{X_A}{X_B}-\frac{O_A}{O_B}--,$$

where X_A represents enrollement in special education, and X_B represents inclusion in the System-Wide testing program; O_A and O_B represent the computer merging (i.e., observation) of the Special Education and the System-Wide files in February, 1977.

The evaluation sought to answer the following questions:

1. What criteria define the target student population for potential achievement and attitudinal testing?

2. What percent of the target student population had responded to tests in the System-Wide testing program?

3. What was the performance level of these students in the System-Wide testing program?

4. What were the recommended tests for the measurement of reading and math achievement and attitudes among the target population of special education students?

Evaluation Results:

1. It was thought that primary handicapping condition was the most feasible means of defining the target population, at least in terms of large group criteria. Selected handicap categories were retardation (EMR, TMR), emotionally disturbed (ED), speech, learning disability (LD), minimal brain injury (MBI), and orthopedic/other health impaired (OH/OHI).

2. A significant number of special education students had participated in the System-Wide testing program (N=2359), but most participation was in the elementary grades. Only 309 secondary students participated in the testing. Speech handicapped students accounted for a large portion of special students being tested in the System-Wide program (N=1767). The LD and EMR categories accounted for about the same number of students (N=509 and 584, respectively).

3. The percent of the target population tested in each grade was as follows: KN - 68.0, first - 73.1, second - 80.3, fourth - 71.0, sixth - 76.6, eighth - 55.7, ninth - 34.1, and twelfth - 15.2. Overall, 70.3 percent of the target population was tested.

4. The test performance of special education students was generally quite low, and the number of students scoring above a chance level was generally only about one-fifth to one-third the total number of special students tested.

5. Very few group-administered tests have been developed and field tested with special education populations, and there are apparently little or no normative data available.

6. In terms of attitude measurement, the Oral School Attitude test may have some application, with modification. The Piers-Harris Children's Self Concept Scale and the Illinois Index of Self-Derogation have both been used with EMR student populations.

7. In terms of achievement testing, previous research suggests that out-of-level testing with standardized batteries is the best

Evaluation Results (Continued):

alternative. Small group testing is recommended. Out-of-level testing may not be appropriate in the lower grades, since it is frequently necessary to drop several levels below chronological grade level in order to secure above chance performance. A Better alternative may be to modify selected criterion reference tests to suit the lower levels of achievement performance.

Additional Information:

SE77-067-9-8 A Study to Develop Testing For Achievement and Attitude of Special Education Students, 1977, Daniel J. Macy, Sharon Kosinski.

74-309

Abstract

An Empirical Study of the Myklebust Learning Quotient

Evaluator: Daniel J. Macy

Purpose of the Evaluation: The Myklebust Learning Quotient (LQ) has been put forth as an indicator of potential learning disability. The LQ is defined in terms of the ratio of actual school achievement level to expected achievement level and is generally applied to standardized test scores. During the 1973-74 school year, the LQ was adopted as one means of verifying learning disabilities in Plan A, a mainstream special education program. The purpose of this evaluation study was to investigate LQ distribution characteristics when applied to a large segment of the Dallas Independent School District population. Such information would assist decision-makers in using the LQ to identify and verify learning disabilities and possibly other related learning problems.

Sample: The sample was drawn from the second, fourth, sixth, and eighth grades. It included all students whose scores were contained in the 1973-74 System-Wide Testing computer file and whose measured IQ (either verbal or nonverbal) was greater than 90. About 71 percent of these students had either a verbal or nonverbal IQ greater than 90.

Evaluation Design: The evaluation design involved only the computation of LQs, based on available standardized test data, and the computation of LQ distribution characteristics (mean, standard deviation, skewness, and kurtosis) for grade levels, subtests, and student gender-by-ethnicity subgroups. The study did not involve any test administration. The evaluation considered the following question:

1. What are the distribution characteristics of the Myklebust Learning Quotient for total grade-level samples and selected sample subgroups?

Evaluation Results: The results of the study showed that means and standard deviations of LQs varied considerably for different student subgroups, subtests, and grade levels. While the LQ generally approached the theoretical normal distribution, the LQ was non-normally distributed in a few student subgroups.

The data showed that a single cutoff value to identify a specified percent of the student population would not be feasible. Rather, different cutoff values should be used for different subgroups, grade levels, and subtests. The results were seen to have direct application for use of the LQ in Plan A.

2006

Additional Information:

75-598	Compilation of a Data Base for Project H.E.L.P. (Highlighting Early Learning Problems), 1975, James A. Baker, 16 pages.
75-597	Project H.E.L.P. (Highlighting Early Learning Problems), 1975, 78 pages.
74-309	An Empirical Study of the Myklebust Learning Quotient, 1974, Daniel J. Macy, 12 pages.

2007

Abstract

A Plan for Applied Research

Evaluator: Michael R. Vitale

This report presented a conceptual framework for applied research within the Dallas Independent School District (DISD) that delimited those areas of investigation having the greatest potential impact upon classroom instruction. The specific processes and products targeted for an applied research effort were: (a) attendance, (b) classroom discipline, (c) classroom management, (d) academic achievement, (e) school attitude, and (f) self-concept (i.e., self-esteem). An implicit and important assumption of the plan presented was that the application and systematic extension (i.e., generalization) of the knowledge gained through past research in these categories could be utilized in a technological fashion to improve classroom instruction in the targeted areas.

The report first offered a set of criteria to judge the relevance to the DISD of any applied research project along with the forms such research might assume. The general criteria presented emphasized that applied research having highest priority within the District should ideally produce results having promise of adoption within the classroom instructional setting across all curriculum areas, be well-founded in the research literature, and utilize a rigorous research design and methodology. In addition, the highest priority applied research projects would be expected to focus substantively upon the targeted areas (attendance, classroom discipline, classroom management, academic achievement, school attitude, self-concept) in accordance with one (or more) of three research forms (descriptive, demonstrational, analytic/optimizing) intended to designate the type of investigations most likely to yield useful information given the "state of the (research) art" in each. The specific research forms and topics associated with each area (and sub-area) targeted for applied research within the District are summarized in Figure 1.

In following sections, the report presented an informal instructional learning model and subsequent analyses of each of the targeted areas based jointly upon two major instructional theories (Carroll's Model of School Learning, Gagne's Hierarchical Learning Theory) and two major motivational theories (Contingence Management, Staat's A-R-D Mediational Theory) selected as being most directly relevant to the applied research plan. Finally, the report overviewed research potentially impacting the targeted areas for applied research to provide illustrations from the literature that could serve as a basis for suggested future investigations within the District.

Targeted Areas	Suggested Research Forms and Topics
Attendance	Demonstrational, Analytic/Optimizing: Reinforcement Systems
Classroom Discipline	Demonstrational, Analytic/Optimizing: Reinforcement Systems
Classroom Management	Demonstrational, Analytic/Optimizing: Reinforcement Systems
Academic Achievement	
Time and Learning	Descriptive, Demonstrational: Scheduling and Utilizing Time for Instruction Demonstrational, Analytic/Optimizing: Reinforcement Systems Analytic/Optimizing: Tutoring
Instructional Quality	
Achievement Assessment	Demonstrational: Student Motivation for Valid Assessment Demonstrational: Procedures for Construction/Use of Valid Classroom Tests
Curriculum Structure	Descriptive/Demonstrational: Curriculum/Classroom Learning Structures and Sequential Curriculum Validity
Augmenting Classroom Practice	
Imagery	Demonstrational: Impacting Learning and Retention
Social Modeling	Demonstrational: Impacting Learning and Retention
Mathemagenic Behavior	Demonstrational: Impacting Learning and Retention
School Attitude	
Assessment	Demonstrational: Establishing Validity of Verbal/Non-Verbal Techniques
Development	Descriptive, Demonstrational: School/Instructional Processes Impacting Development
Self-Concept (Self-Esteem)	
Assessment	Demonstrational: Establishing Validity of Verbal/Non-Verbal Techniques
Development	Descriptive, Demonstrational: School/Instructional Processes Impacting Development

Figure 1. Overview of Applied Research Plan. As defined in the report, descriptive research summarizes or analyzes the present status of a condition within the District; demonstrational research illustrates through rigorous documentation the effectiveness of a technique; and analytic/optimizing research identifies the conditions under which a given technique will work best or refines a technique itself to have maximum impact.

Additional Information:

76-892 A Plan for Applied Research, 1976, Michael R. Vitale, 65 pages.

75-571 Investigation of Classroom Instructional Variables in the Curriculum Areas of Reading, Language Arts, Social Studies, Health-Science, and Mathematics, 1975, Michael R. Vitale, 67 pages.

75-568 Student Perception, Preference, Attitude, and Academic Self-Concept in English, Social Studies, Mathematics, and Science, 1975, Michael R. Vitale, 62 pages.

2011

Abstract

Student Perception, Preference, Attitude, and Academic Self-Concept in English, Social Studies, Mathematics, and Science

Evaluator: Michael R. Vitale

Purpose of the Evaluation: The major purpose of this investigation was to compare student perception, preference, and attitude toward instruction in the curriculum areas of English (i.e., Language Arts), Social Studies, Mathematics, Science, along with students' own judgement of their academic potential (i.e., academic self-concept) within each area. Additionally, in an exploratory fashion, the investigation attempted to provide information potentially relevant to both interpreting and developing student school attitude and academic self-esteem. The specific evaluation questions investigated were as follows:

1. How do students perceive the curriculum areas of English, Social Studies, Mathematics and Science in the context of other academic and non-academic school events, and what preferences do they display in this context?

2. How do student attitude and academic self-concept within the areas of English, Social Studies, Mathematics, and Science compare, and how do they relate to student grade level, ethnicity, and sex?

3. How do student ratings of selected instructional process variables common to the areas of English, Social Studies, Mathematics, and Science compare, and how do they relate to student grade level, ethnicity, and sex?

4. In the four curriculum areas of English, Social Studies, Mathematics, and Science, can student activities that would provide a basis for both interpreting and developing positive student attitude and self-concept be identified?

Sample: Four separate groups of junior and senior high school students participated in the study. Because the intent of the investigation was to provide the most representative information possible within the limits of available resources, students were sampled (whenever possible) on a district-wide stratified-random basis at the seventh- and twelfth-grade levels in order to accurately reflect the cumulative effect of upper elementary and secondary school experiences. For evaluation question one, a sample of 160 seventh- and twelfth-grade students, stratified by grade, ethnicity, and sex were sampled randomly from a total of two junior high and two senior high schools chosen on the basis of their having approximately equal proportions of Anglo, black, and Mexican-American students. For evaluation question two, a district-wide representative group of seventh- and twelfth-grade students was sampled from 15 junior and senior high schools in accordance with a

stratified-sampling school-cluster plan, using a single classroom within each school selected as the sampling unit. For evaluation question three, the same district-wide sampling procedure used for question two was followed in independently obtaining a second group of 957 students. However, for the third evaluation question, eleventh- rather than twelfth-grade students were surveyed due to the survey's being administered near the end of the school year. Finally, for evaluation question four, two samples were utilized. One, consisting of 60 7th, 9th, and 11th graders attending five different schools sampled from two randomly-selected high/junior high/elementary school attendance zones provided preliminary data in identifying school activities for subsequent exploration. The second, consisting of the original 160 students, was used in answering evaluation question one.

Evaluation Design and Analysis: The overall design of the investigation followed the paradigm shown below, in which S1, S2, S3, and S4, respectively, represent the four participating groups; 0_1 represents the administration of a student rating form on which students indicated the frequencies with which 39 specified behaviors occurred in their best- and in their least-liked school events; 0_2 represents student ratings judging the similarity among 13 general school "subjects" (English, Social Studies, Mathematics, Science, plus Industrial Arts, Physical Education, Art, Study Hall, Library, Visits, Foreign Language, Assembly Programs, Speech, and Homemaking) in terms of the activities common to each; 0_3 represents student preference-orderings (i.e., rankings from most- to least-preferred) for the same 13 school events; 0_4, student ratings judging the frequency with which each of a selected sub-test of 18 student activities occurred within each of the 13 school activities; 0_5, the administration of parallel forms of the School/Self Appraisal Inventory (SSAI) assessing student attitude and academic self-concepts in the areas of English, Social Studies, Mathematics, and

Overall Design of Investigation

Sample	N	Phase of Investigation 1	 2	 3
S1	160		0_2,0_3	0_4
S2	535			0_5
S3	950			0_6
S4	60	0_1		

Science; and, finally, O_6, the administration of the Student Instructional Questionnaire (SIQ), an experimental instrument assessing student satisfaction with instructional processes in the areas of English, Social Studies, Mathematics, and Science, across seven categories, (Class Organization/Planning, Subject Motivation, Instructional Procedures, Teacher-Student Feedback, Class Openness, Tests, and Grades.

In addition to providing the substantive data described above, the three phases of the design represented sequentially dependent steps logically required for meaningful data interpretation. Specifically, phase one provided the basis for the selection of activities which students were to associate with the 13 general school subjects in terms of their differential affective value and frequency of occurrence. In phase two, the student judgements of the similarity among the 13 general school subjects in general, and English, Social Studies, Mathematics, and Science in particular provided a basis for interpreting student preference rankings (of the 13 school subjects). The preference rankings themselves functioned to provide an overall context within which to compare student preference for the major areas investigated (English, Social Studies, Mathematics, and Science). Phase three, in addition to assessing student attitude and self-concept in the four curriculum areas, provided data relevant to interpreting the SSAI scale differences jointly in terms of (a) concomitant student differences in satisfaction of the SIQ instructional processes and (b) student activities differentially associated with the most- vs. least-preferred 13 school subjects.

Statistical techniques used to analyze the data obtained over the three logical phases of the investigation included algorithms for multidimensional scaling to assess student perceptions of the 130 school subjects (MINISSA-I), individual differences scaling to determine if students perceived the school subjects in the same manner (INSCAL), preference mapping to relate student preference and their perceptual structure for the 13 school subjects (PREFMAP), and hierarchical clustering to group together (a) the 13 school subjects, and (b) the 13 school subjects with 18 behavioral activities (HICLUS) SSAI. In addition, multivariate covariance analysis was used to investigate student attitude and self-concept responses, along with SIQ ratings on the four curriculum areas investigated.

Evaluation Results: The major results of the investigation, organized by evaluation question, are summarized below:

1. Based upon mean preference-rankings, students were found to display moderate preferences toward the four curriculum areas of English, Social Studies, Mathematics, and Science considered within the context of the set of 13 school subjects. More specifically, the four areas were less-preferred than Art, Physical Education, Homemaking, Assembly Programs, and Industrial Arts, but simultaneously, more-preferred than Speech, Foreign Language, Library, and Study Hall. Compared to each other, students' ratings of the four areas in order of most-

to least-preferred were (a) Social Studies, (b) English, (c) Mathematics, and (d) Science.

Multidimensional scaling and clustering techniques revealed that students categorized the 13 school subjects into two major groups: Academic (English, Foreign Language, Speech, Social Studies, Science, Mathematics) and non-academic (Art, Industrial Arts, Homemaking, Study Hall, Library Visits). Within these two groups, academic activities fell along a quantitative-non-quantitative dimension ranging from Speech and Foreign Language to Science and Mathematics) while non-academic subjects (Assembly Programs, Study Hall, Homemaking, Industrial Arts) were grouped in terms of whether they were constraining or varied in terms of activities. In addition, individual differences analyses conducted through INSCAL revealed that students, with the possible exception of seventh-grade Mexican-Americans, tended to perceive similarity among the 13 school subjects in the same manner. Finally, when PREFMAP was used to model student preference rankings, followed by multivariate analysis of variance, seventh graders were found to exhibit more academic vs. non-academic preferences than twelfth graders.

2. As measured by the SSAI Attitude and Self-Concept scales, students were found to both enjoy instruction more and to hold more favorable opinions of their own academic potential for success in non-quantitative (Social Studies, English), as opposed to quantitative (Mathematics, Science) curriculum areas. Within these sub-areas, when differences were observed, Social Studies was generally rated more favorably than English, with Mathematics being judged more favorably than Science. As inspection of the table below shows, the four areas were ordered in the same manner on both attitude and self-concept,

SSAI School Attitude and Academic Self-Concept
Mean-Item Scores in Each Curriculum Area

Area	SSAI Scale	
	Attitude	Self-Concept
English	3.84	4.28
Social Studies	3.86	4.38
Mathematics	3.60	3.86
Science	3.40	3.80

2015

suggesting that both these affective measures might be influenced by common sets of variables. (Factor structures obtained for the items on the two scales revealed that they were in fact validly assessing different affective responses.)

In considering the relationship of student concomitant variables to the SSAI scales, seventh graders were found to display both more positive attitudes and self-concepts in all areas except English, for which no difference was found. Surprisingly, no sex differences in attitude and self-concept were observed, with the exception that females displayed both more positive attitudes and self-concepts in English. Although the pattern of relationships between ethnicity and the affective measures was complex, Anglos generally displayed more positive academic self-concepts than did non-Anglos, with blacks displaying more positive self-concepts than did Mexican-Americans. With the exception that non-Anglos evidenced a more positive English attitude than did Anglos, ethnicity was not found to be related to school attitude within the four curriculum areas.

3. Student ratings of instructional process variables produced significant differences between the four curriculum areas on five of the seven SIQ scales (Classroom Organization/Planning, Instructional Procedures, Class Openness, Tests, and Grades) with no significant differences on the remaining two (Subject Motivation, Teacher/Student Feedback). In general, the results paralleled those obtained on the student SSAI attitude and self-concept responses, with the non-quantitive areas (Social Studies, English) in general, and Social Studies in particular, receiving higher ratings than the two quantitive areas (Mathematics, Science), with the exception that tests in Mathematics and English were rated more favorably than those in Social Studies. Based upon these results, and upon subsequent follow-up analyses of the individual items within each scale, the differences obtained between the curriculum areas in attitude and self-concept seemed partially attributable to the differences in instructional process variables associated with them. At the same time, and more importantly, it would follow that the improvement of specific instructional-process variables (i.e., wasted class time, making learning objectives clear, teaching topics clearly at a speed allowing for repetition over difficult material to be learned) as well as others encompassed by the above SIQ scales would result in more positive student attitudes and self-concepts.

   Focusing upon the relationships of student concomitant variables to the SIQ scales, seventh-grade students generally rated instruction more favorably than did eleventh-graders, with no consistent pattern for the few significant relationships involving ethnic and sex differences observed.

4. Preliminary student ratings identified student behaviors differentially associated with student best-liked (e.g., talking, learning, watching, doing different things, teacher praise, etc.) and least-liked (e.g., writing, reading, sitting, listening, etc.) school activities. In addition student ratings associating behavioral-activities (selected on the basis of the preliminary analysis) with each of the 13 school subjects (including English, Social Studies, Mathematics, and Science) revealed three distinctive school-subject behavioral-activity groupings that jointly mirrored student perceptual similarities of the 13 school subjects, their preference-orderings, and the affective-value (positive or negative) of the 18 specific student behaviors. The specific groups identified, in order of their positive to negative preference-ratings were: Non-academic/freely organized (Art, Industrial Arts, Homemaking, Assembly Programs, Physical Education/showing, moving around, doing different things, in a large group, talking, without teacher), Academic/positively valued (Mathematics, English, Social Studies/doing quickly, writing, with teacher, teacher praise), and Negative Academic/non-academic (Library Visit, Study Hall, Foreign Language, Speech/reading, sitting, listening, small group). In general a clear trend was observed for the preference-orderings of the school subjects in the three groups identified to be functionally related to the proportion of activities within each having previously-determined positive (as opposed to negative) affective-value. Interestingly, Science, which ordinarily consists of laboratory experiences, fit most closely to the positively-valued non-academic/freely organized cluster rather than to the English, Social Studies, Mathematics grouping. This indicated that the behavior most closely associated with it, "doing things slowly," may have operated as a "negative" factor to lower its preference and attitude standing.

Ultimately, in addition to the differences in instructional process variables considered above, these results suggested that student attitude is directly related to the affective-value of the general student behaviors comprising a school subject or event; and, in an anologous fashion, they would suggest that the modification of behavioral concomitants within a curriculum area might also result in improved student attitude and self-concept.

2017

Additional Information:

75-568 Student Perception, Preference, Attitude, and Academic Self-Concept in English, Social Studies, Mathematics, and Science, 1975, Michael R. Vitale, 62 pages.

75-571

Abstract

Evaluation of School Climate for Learning

Evaluator: Michael R. Vitale

Purpose of the Evaluation: The purpose of this evaluation was to assess the degree to which the general school (building) facilities are supportive of the needs of students within the Dallas Independent School District (DISD). The specific evaluation questions investigated were as follows:

1. Can a reliable measure of school climate be developed, and, if so, what general facets of school climate can be assessed objectively?
2. What is the estimated school climate in DISD Elementary, Junior/Middle, and Senior high schools; and what differences, if any, exist among these three types of schools?

Sample: Two independent random samples of schools were stratified on two factors: (a) school type (Elementary, Junior High/Middle, Senior High), and (b) school clusters (within school type) based upon achievement, ethnic composition, and socioeconomic similarity. These two samples were observed in November, 1974 (Phase I) and May, 1975 (Phase II) by Research, Evaluation, and Information Systems personnel. Each sample was composed of 12 Elementary, 9 Junior High/Middle, and 6 Senior High schools.

Evaluation Design: The evaluation design consisted of two parts. One part focused upon the determination of the reliability and factorial validity of the School Climate Survey Form (SCSF), developed for the evaluation. The second part emphasized the estimation of school climate in the schools sampled via 12 SCSF school-area scales: Outside Grounds, Classroom, Library, Study Halls, Auditorium, Gym, Play Area, Lunchroom, Halls and Stairs, Restrooms, Clinic, and Administrative Area. The degree to which raters evidenced systematically different (i.e., unreliable) levels of school climate was assessed by a 3 x 6 Analysis of Variance which crossed school types with six different raters. The degree of rater agreement (i.e., reliability) across the 12 area scales was determined by having eight schools rated independently in each phase by two different observers and then computing percentage agreement scores as reliability estimates. The design within each phase for the estimation of school climate (shown below) partially counterbalanced the three school types with the six raters but was augmented by the addition of a seventh rater to complete the sample of Junior High/Middle schools.

Design for Estimating School Climate for Each Sampling Phase

School Type	Rater 1	2	3	4	5	6	7
Elementary	2	2	2	2	2	2	0
Junior High/Middle	1	1	1	1	1	1	3
Senior High	1	1	1	1	1	1	0

Evaluation Results:

1. Analysis of Variance in each of the two phases of the investigation revealed no significant differences among raters. Percent agreement scores revealed a high degree of inter-rater agreement among the 12 school area scales. Factor Analysis of the 12 area scales produced a two-factor solution: areas impacting students each day, (i.e., continuous), and areas impacting students intermittently. These results, therefore, support the inference that the SCSF is an objective (i.e., reliable) instrument. In view of the specific nature of the items within each area, the SCSF has an acceptable basis for content validity.

2. As a group, DISD schools were found to be rated generally pleasant in the areas of Outside Grounds, Classrooms, Libraries, Study Halls, Auditoriums, Gyms, Play Areas, Lunchrooms, Halls and Stairs, Clinics, and Administrative areas. One category, Restrooms, was, on a district-wide basis, judged moderately unpleasant. However, despite the pleasant rating achieved as a group, the SCSF local-norm revealed much variability in the form of extremely high and/or extremely low scores across individual schools. In addition, senior high schools were judged by raters to be significantly more pleasant than junior high and elementary schools on a majority of scales: Outside Grounds, Libraries, Gyms, Lunchrooms, Halls and Stairs, Clinics, and Administrative Areas. Elementary schools were judged significantly more pleasant than junior high/middle schools on Outside Grounds and Gyms. No significant differences were found among school types on Auditoriums, Play Areas, or Restrooms.

Additional Information:

75-570 Evaluation of School Climate for Learning, 1975, Michael R. Vitale, 32 pages.

Abstract

The Effects of Teacher and Student Characteristics on Mathematics and Vocabulary Achievement

Evaluator: Daniel S. Sheehan

Perspective

The basic premise of aptitude-treatment interaction (ATI) theorists is that no single instructional process provides optimal learning for all students. Given predetermined educational goals, some students will be more successful with one instructional program and other students will be more successful with an alternative instructional program. Therefore, when instruction is differentiated for different types of students, a greater proportion of students will attain the instructional goals.

Matching students and teachers on the basis of status variables (e.g., sex, age, ethnicity) is related to this line of reasoning. The assumption is that these characteristics or traits possessed by teachers will interact, independent of program, with similar characteristics or traits possessed by students (Webster and Mendro, 1974). Such matching of students and teachers has received considerable attention in the literature. For example, Asher and Gottman (1973) have investigated the hypothesis that boys' reading performance would benefit from instruction by a male teacher; and the much-debated work of Rosenthal and Jacobson (1968), along with the review of examiner bias by Sattler (1970), has led to the hypothesis that black students would benefit from instruction by black teachers.

Yet in spite of the interest in matching students and teachers on the basis of status variables, no useful interactions have been discovered. Thus, this study was designed to investigate the possibility of interactions existing between teacher and student status variables. Specifically, two studies were conducted; in both, first-grade teachers and students comprised the populations of interest, first-grade achievement data served as a pretest measure, and second-grade achievement data served as a posttest measure. Teacher status variables included race, age, experience, degree earned, and National Teacher Examination (NTE) score; the student status variables included only race and sex.

Limitations of the Studies

Simply stated, these studies were exploratory, not experimental. The designs were such that the results could not be generalized to populations other than those specifically considered.

In addition, the mechanics of conducting the studies may have reduced their representativeness. A variety of steps necessitated extracting and merging data from several sources. Because of missing and incomplete data, a by-product of each step was a reduction in the number of usable data points. A final result may have been a collection of data points not completely representative of the populations of first-grade students and teachers.

Study I

Sample

The total sample consisted of 147 or 37% of the first-grade teachers and 2239 or 20% of the first-grade students from the first-grade teacher and student populations for the 1973-74 school year. The racial composition of the sample of teachers was approximately three-tenths black and seven-tenths white. That of the students was approximately one-half black and one-half white.

Measures

The Metropolitan Readiness Tests (MRT) word meaning and number subtests (the pretest measures) had been administered by the school district to the students in September of 1973. The Iowa Tests of Basic Skills (ITBS) vocabulary and mathematics subtests (the posttest measures) had been administered by the school district to the students in September of 1974.

Procedure

Using the MRT word meaning raw scores as covariates, and the ITBS vocabulary raw scores as posttest measures, vocabulary residual gain scores were calculated for each student. Likewise, mathematics residual gain scores were calculated for each student by using the MRT number raw scores as covariates and the ITBS total mathematics raw scores as posttest measures.

A multiple-regression approach was used to determine the proportion of variance in the vocabulary class-average residual gain scores accounted for by teacher race, teacher experience, teacher age, teacher degree, and teacher NTE score. Similarly determined was the proportion of variance in the mathematics class-average residual gain scores accounted for by these teacher characteristics.

It should be pointed out that residual gain scores for teachers across years have, in some instances, shown high gains in language arts and low gains in mathematics, or vice versa (Brophy, 1973). Thus separate analyses were conducted for the vocabulary and mathematics residual gain scores.

It should also be pointed out that teacher sex was not considered a status variable because there were insufficient numbers of male first-grade teachers.

It was decided to utilize teacher race, teacher age, teacher experience, teacher degree, or teacher NTE score as a status variable if it accounted for at least 1% of the variance of the residual gain scores. In the case of the mathematics residual gain scores only teacher NTE score (3.04%) accounted for at least 1% of the variance. Thus teacher NTE score was used as a status variable and was divided at the median into two levels (scores less than 550 and scores greater than 549). For the mathematics residual gain scores a 2x2x2 (teacher NTE score x student race x student sex) analysis of variance was performed.

In the case of the vocabulary residual gain scores, both teacher NTE score (4.88%) and teacher degree (1.23%) accounted for at least 1% of the variance. Teacher degree was divided into two levels (bachelor's degree and master's degree); both teacher degree and teacher NTE score were used as status variables, and a 2x2x2x2 (teacher NTE score x teacher degree x student race x student sex) analysis of variance was performed.

Results

Mathematics Residual Gain Scores. Inspection of the mathematics residual gain scores (see Table 1) indicated the familiar pattern of superior performance of white students. The average difference between black students

Table 1

Summary Statistics of Mathematics Residual
Gain Scores by Teacher NTE Score,
Student Race, and Student Sex

	NTE Scores Greater Than 549						NTE Scores Less Than 550					
	Black Students			White Students			Black Students			White Students		
Student Sex	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD
Males	33	-1.03	4.72	32	2.98	5.64	45	-2.11	5.80	40	0.44	5.16
Females	38	-0.11	4.18	28	1.79	4.90	39	-1.69	3.98	38	0.68	6.64

and white students was nearly 2.75 raw score units. This difference was statistically significant (F = 19.42, df = 1/285, p < .0001). Also indicated was a difference in residual gain scores of students taught by teachers with higher versus lower NTE scores. Among both black and white students there was a tendency for higher achieving students to be associated with teachers having higher NTE scores. This difference was statistically significant (F = 6.60, df = 1/285, p < .05).

Vocabulary Residual Gain Scores. Vocabulary residual gain scores (see Table 2) also indicated higher achievement for white students. This difference between black and white students was statistically significant (F = 17.61, df = 1/277, p < .0001). Likewise, there was again a trend toward higher achieving students' being associated with teachers having higher NTE scores, and the difference was significant (F = 4.00, df = 1/277, p < .05). In addition, the higher level of vocabulary achievement associated with female students was also significant (F = 5.15, df = 1/277, p < .05).

A significant interaction existed between teacher NTE score and student race (F = 5.88, df = 1/277, p < .05). A simple main-effects analysis indicated that within the student-race factor the higher NTE level was significant (F = 18.26, df = 1/277, p < .0001). Examination of this NTE level revealed that the residual gain scores of white students were significantly higher than those of black students.

Study II

Methodology

To determine the stability of these findings a second study was conducted on the 1974-75 population of first-grade teachers and students. For this study the total sample consisted of 319 or 70% of the first-grade teachers and 4139 or 36% of the first-grade students. The racial composition of the sample of teachers was approximately one-third black and two-thirds white. That of the students was again approximately one-half black and one-half white.

In the case of the mathematics residual gain scores, only teacher race (1.37%) accounted for at least 1% of the variance. Teacher race was divided into two levels (black teachers and white teachers) and a 2x2x2 (teacher race x student race x student sex) analysis of variance was performed.

In the case of the vocabulary residual gain scores, both teacher race (2.88%) and teacher experience (1.02%) accounted for more than 1% of the variance. Teacher race was divided into two levels (black teachers and white teachers); teacher experience was divided into three levels (0 to 4 years of experience, 5 to 19 years of experience, and 20 or more years of experience); and a 3x2x2x2 (teacher experience x teacher race x student

Table 2

Summary Statistics of Vocabulary Residual Gain Scores by Teacher NTE Score, Teacher Degree, Student Sex, and Student Race

	NTE Scores Greater than 549												NTE Scores Less than 550											
	Master's Degree						Bachelor's Degree						Master's Degree						Bachelor's Degree					
	Black Students			White Students			Black Students			White Students			Black Students			White Students			Black Students			White Students		
Student Sex	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD
Males	4	-3.67	2.70	8	2.83	5.45	29	-2.55	3.61	24	2.42	4.61	13	-2.54	5.49	7	-4.68	2.07	32	-1.63	4.03	33	0.52	4.40
Females	7	-1.39	7.10	6	3.00	4.78	30	-0.12	4.75	22	1.39	4.29	12	-0.98	4.74	8	0.71	5.68	25	-1.46	3.22	30	1.48	4.75

2025

2026

race x student sex) analysis of variance was performed. [The teacher experience levels were selected on the basis of differences in student ratings received by teachers at each level (Bledsoe, Brown, and Strickland, 1971).]

Thus except for differences in the teacher and student populations and in the importance of the teacher status variables, the second study was a replication of the first.

Results

Mathematics Residual Gain Scores. Inspection of the mathematics residual gain scores (see Table 3) once again indicated a pattern of superior performance of white students. The average difference between black students and white students was nearly 1.75 raw score units and the difference was statistically significant ($F = 34.47$, $df = 1/1067$, $p < .0001$).

Table 3

Summary Statistics of Mathematics Residual Gain Scores by Teacher Race, Student Sex, and Student Race

	Black Teachers						White Teachers					
	Black Students			White Students			Black Students			White Students		
Student Sex	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
Males	94	-1.90	3.94	72	0.54	5.06	200	-0.20	3.92	170	1.38	4.53
Females	97	-0.78	4.03	70	0.66	4.67	198	-0.33	4.79	174	1.12	4.51

Also indicated was a difference in residual gain scores of students taught by black versus white teachers. Among black and white students there was a tendency for higher achieving students to be associated with white teachers. This difference was statistically significant ($F = 8.57$, $df = 1/1067$, $p < .01$). Surprisingly, the interaction between teacher race and student race was not significant ($F = 0.52$, $df = 1/1067$, $p = .47$).

Vocabulary Residual Gain Scores. As with the first study, the vocabulary residual gain scores indicated higher achievement for white students and for females (see Table 4). The difference between black and white students and the difference between male and female students were statistically significant ($F = 54.57$, df = 1/1051, $p < .0001$; $F = 26.30$, df = 1/1051, $p < .0001$, respectively). There was also a trend toward higher achieving students' being associated with white teachers, and the difference was significant ($F = 10.39$, df = 1/1051, $p < .01$).

There was no significant interaction between student race and teacher race ($F = 0.32$, df = 1/1051, $p = .57$). However, there were significant interactions between teacher race and teacher experience ($F = 8.85$, df = 1/1051, $p < .001$), teacher race and student sex ($F = 7.58$, df = 1/1051, $p < .01$), and, most importantly, between teacher race, teacher experience, and student sex ($F = 4.19$, df = 1/1051, $p < .05$).

Figure 1 shows the graph of the second-order interaction. To assist in interpreting this interaction, mean vocabulary residual gain scores were computed for each "cell" in the figure. By testing for main effects, black teachers were compared with white teachers at each separate level of the other two factors. At the "0-4 years of experience" level female students achieved at a significantly higher level with black teachers ($F = 15.23$, df = 1/1051, $p < .0001$); the difference in achievement of male students between black teachers and white teachers was not significant. At the "5-19 years of experience" level male students achieved at a significantly higher level with white teachers ($F = 6.92$, df = 1/1051, $p < .01$); the difference in achievement of female students between black teachers and white teachers was not significant. At the "20 or more years of experience" level both male and female students achieved at a significantly higher level with white teachers ($F = 9.75$, df = 1/1051, $p < .01$; $F = 6.99$, df = 1/1051, $p < .01$, respectively).

Put more succinctly, Figure 1 tells us that when exposed to white teachers, both male and female students achieved at a higher level when the teachers had more experience. When exposed to black teachers, female students achieved at a higher level when the teachers had less experience. When male students were exposed to black teachers, they achieved at the highest level when the teachers had an intermediate amount of experience; and they achieved at the lowest level when the teachers had the most experience.

Discussion and Conclusions

Again, the reader is reminded of the exploratory nature of this study. Because of the lack of random assignment and experimental control the significant results between the status variables and the measures of teacher effectiveness could be spurious. That is, they could be caused by other unmeasured, and uncontrolled, variables.

Thus the following conclusions can only tentatively be drawn from this study:

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Summary Statistics of Vocabulary
Race, Teacher Experience, St

	Black Teachers										
	Black Students						White Students				
	Males			Females			Males			Female	
Teacher Experience	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$	SD	N	$\overline{X}$
0-4 years	13	-2.43	3.46	16	1.73	5.55	20	-0.59	5.08	20	4.22
5-19 years	63	-2.37	3.67	62	-0.99	3.54	40	0.06	3.91	39	2.08
20 or more years	18	-3.72	5.28	19	-1.42	3.42	12	-0.08	3.39	11	0.90

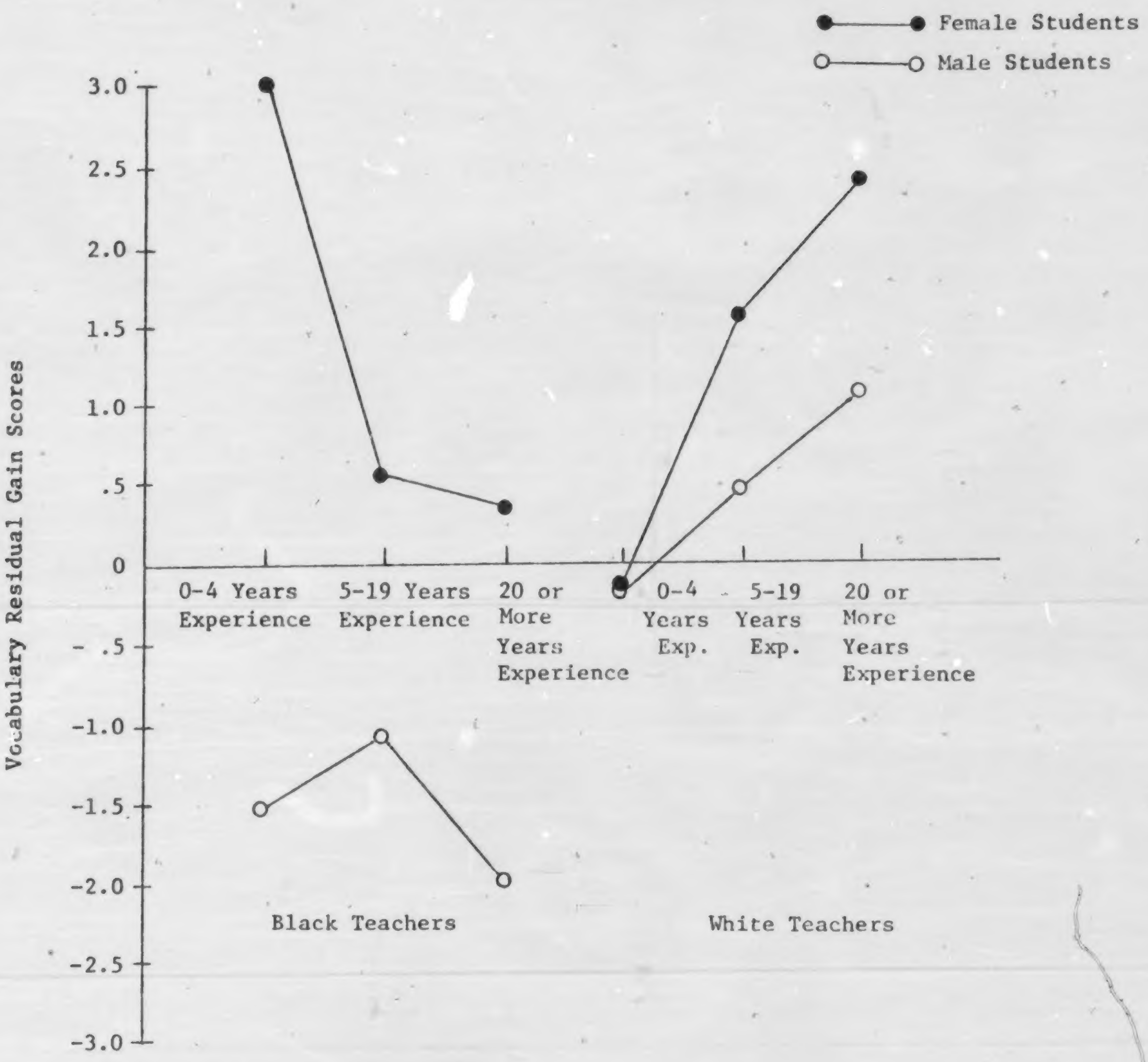
e 4

Residual Gain Scores by Teacher
udent Sex, and Student Race

	White Teachers											
	Black Students						White Students					
s	Males			Females			Males			Females		
SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
.67	131	-1.43	3.24	131	-0.64	3.92	45	1.14	5.12	51	0.36	5.86
.32	48	-1.14	3.53	46	0.09	5.16	62	2.00	3.63	59	3.03	5.31
.76	21	0.26	4.05	21	1.18	5.77	63	1.94	3.94	64	3.44	4.18

Figure 1

Teacher Experience X Teacher Race X Student Sex Interaction Using Vocabulary Residual Gain Scores



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1. White first-grade students outperformed black first-grade students in the areas of mathematics and vocabulary.

2. Female first-grade students outperformed male first-grade students in the area of vocabulary.

3. When NTE score was used as a teacher status variable, first-grade teachers with higher NTE scores tended to be associated with higher levels of student achievement.

4. When race was used as a teacher status variable, white first-grade teachers tended to be associated with higher levels of student achievement.

5. When degree earned was used as a teacher status variable, there was no difference in the performance of first-grade students taught by teachers having bachelor's degrees or master's degrees.

6. When experience was used as a teacher status variable, there was no difference in the performance of first-grade students taught by teachers having low, moderate, or high levels of experience.

There were also indications that teacher status variables may interact with student status variables. Although teacher race did not interact with student race, two other interactions were discovered: (a) an interaction between teacher NTE scores and student race, and (b) an interaction between teacher experience, teacher race, and student sex. More specifically, in the area of vocabulary achievement, first-grade teachers having higher NTE scores were most effective with white students. In addition, when race and experience were used as teacher status variables, both male and female students tended to achieve at a higher level with white first-grade teachers who had more experience. With black first-grade teachers female students achieved at a higher level when the teachers had less experience. With black first-grade teachers male students achieved at the highest level when the teachers had an intermediate amount of experience; the male students achieved at the lowest level when the teachers had the most experience.

At a more global level we can question why different teacher status variables were selected for the two experiments. Why did only NTE score and degree each account for at least 1% of the variance in the first experiment and only race and experience each account for at least 1% of the variance in the second experiment? We feel that the answer lies with the relative importance of each of the teacher status variables. Quite simply, teacher race, experience, age, NTE score, and degree were not very important. These status variables did not explain an appreciable proportion of the variance of the mathematics and vocabulary residual gain scores.

Future attempts at matching students and teachers may best look beyond status variables. St. John (1971) found that neither the verbal fluency of teachers nor their length of experience was associated significantly with pupil outcomes, whereas subjective ratings by observers were significantly related to outcomes. Perhaps as she states:

> Future studies of equality of educational opportunity should use the anthropologist's observational tools, rather than depend on more "objective" or quantifiable indices of teaching quality. (p. 646)

If we do look beyond teacher and student status variables, to what should we turn? First of all, we should turn to teacher characteristics which are defined in terms of in-class instructional behaviors which mediate active student learning time. Second, although a student status variable such as race accounted for as much as 9% of the variance of the mathematics and vocabulary scores, we should turn to student characteristics which are defined in terms of learning styles which mediate needed learning time (Wiley and Harnischfeger, 1974).

Future experiments must incorporate more of the subtle and less of the obvious. Easily delineated teacher and student characteristics must be replaced by those that are derived from a theory of learning.

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2034

Abstract

Teacher/Student Characteristics Study

Evaluator: Wallace H. Carter, III

Objectives of the Study: The Teacher-Student Characteristics Study of 1976-77 was an exploration of the relationships among teacher instructional style, student locus of control, subject matter, and course grade. It was considered that the results of the study might lead to decisions concerning student placement in particular classrooms. A recent ATI research study (Daniels and Stevens, 1976) found a significant interaction between locus of control and the degree to which a system of instruction is personalized at the college level. The present study was an attempt to test whether or not this disordinal relationship also exists at the grade school level. A verification of this relationship would legitimize a practice counselors could use in placing students who are having academic difficulty into classrooms most conducive to their responsibility orientation.

Sample: Two samples (student and teacher) were selected from the larger samples used in the 1976-77 desegregation study conducted by Sheehan and Marcus (IR77-024-3-5). A file of all eighth-grade teachers whose second-period students completed the Classroom Inventory of the desegregation study was matched against a file of all eighth-grade students (and their second-period teachers). The matched data were extracted to create a file of students of those teachers involved in the desegregation study. This file was reduced when only science, math, language arts, and American history teachers were selected. The Personalized-Traditional Instruction Scale (PTIS) was sent to each of these teachers. Forty-five of the teachers completed the instrument adequately and they comprised the final teacher sample. The matched file was further reduced to include only students who answered all 20 items of the relevant section of the Classroom Inventory. This matchup yielded a final file of 919 students and 45 teachers.

The PTIS was developed by extracting relevant items from questionnaires used in a previous study (Olson, 73-161, Vols. I-VI). These items were modified and the result was a 15-item questionnaire designed to assess the extent to which a teacher's instructional style was classroom oriented (traditional) or individually oriented (personalized) during the second quarter.

The Intellectual-Academic Responsibility Scale (IARS) was used to assess each student's locus of control regarding responsibility for intellectual and academic consequences. Data obtained from the desegregation study mentioned earlier were used.

Research Questions and Designs: Theoretically, it is suggested that students who feel personally responsible for academic success or failure would tend to perform better in a classroom situation wherein individual initiative and control is a dominant characteristic. Conversely, those students who believe academic consequences are mainly due to external factors or to significant others would do best in a highly structured, controlled classroom environment. This position translates into one major research question for this study:

> *Is there an interaction effect between student locus of control and teacher instructional style?*

Another question was added for this study:

> *Are there interaction effects among student locus of control, teacher instructional style, and course subject matter?*

The experimental design used was a three-way (4 x 2 x 2) analysis of variance.

Independent variables

- Instructional style (two levels - traditional style and personalized style).
- Locus of control (two levels - externals and internals).
- Course subject matter (science, math, language arts, and American history).

Dependent variable

- Course grades (A, B, C, D, F)

Results: Table 1 summarizes the results of the analysis of variance:

Table 1

Analysis of Variance for Student Locus of Control, Teacher Instructional Style, and Course Subject Matter

Source		SS	df	MS	F
Teacher Instruction	(T)	0.002	1	0.002	0.002
Student Locus of Control	(S)	13.444	1	13.444	14.196*
Course	(C)	7.207	3	2.402	2.537
TxS		0.458	1	0.458	0.484
TxC		1.321	1	1.321	1.394
SxC		1.276	1	1.276	1.347
TxSxC		4.068	1	4.068	4.295
Error		131.641	139	0.947	

*p<.001

The table shows that only a main effect (student locus of control) can be considered as significant. Table 2 indicates that this effect meant that students who are internals (i.e., consider themselves as responsible for academic consequences) tend to have higher grades than students who are externals (i.e., consider that other factors are responsible for academic consequences) tend to have.

Table 2

Means of All Category
Groups in the Analysis of Variance
(F=0, D=1, C=2, B=3, A=4)

Category	Mean	N
Students under traditional style of instruction	2.67	78
Students under personalized style of instruction	2.30	71
Students with sense of little personal responsibility	2.14	76
Students with sense of much personal responsibility	2.85	73
Students in Science	2.56	36
Students in Language Arts	2.77	62
Students in Math	2.11	27
Students in American History	2.08	24

No significant interaction effects were found, although a trend emerged in the 3-way interaction effect ($p<.05$). The theory implied in the study by Daniels and Stevens (1976) could not be verified by this study. Therefore, no recommendations regarding placement practices can be made at present.

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Abstract

Observational Methods for the Analysis and Assessment of Classroom Insructional Variables Related to Student Academic Achievement

Evaluator: Michael R. Vitale

Purpose: This report selectively identifies techniques designed for the assessment of classroom instructional variables previously shown through research (Rosenshine, 1977; Vitale, 1976) to be important, practical determinants of academic achievement within the public school setting. The specific instructional variables addressed within the report follow directly from a model for instructional analysis (Vitale, 1977) in turn developed from a review of recent theoretical and research trends. An implicit goal of this report is to mark the beginning of an assessment system for the analytic evaluation of both developing and ongoing instructional programs in all academic curriculum areas by showing specific techniques through which observational information can be obtained about the classroom instructional process. Although also of great importance, this report specifically excludes from consideration instruments in the areas of student attitude and academic self-concept because the methodology in these areas, although promising, is at a theoretical and research level rather than a practical and directly usable one at the present time. However, these areas are included with academic achievement in a final section describing specifications for a general assessment program.

Overview: This report consists of five sections. First, a rationale for the importance of systematic instructional variable information is presented within a context of evaluation and a simplified model of the instructional process is reviewed. Second, criteria for the rigorous assessment of these instructional processes are identified. Third, general attributes of potential methods for observing classroom instructional variables are presented. Fourth, selected methods and techniques potentially useful for classroom observation are reviewed. And fifth, some general considerations are directed toward future developments of observational systems across the domain of the classroom instructional setting within the areas of academic achievement, school attitude, and academic self-concept.

Summary:

A Rationale for Obtaining Instructional Variable Information. The argument for the importance of status information about instructional variables within evaluation is simple and direct. Recent research has identified three classes of variables (see Table 1) as having major impact upon school achievement:

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Table 1

Observational Variables Having Major Impact
Upon School Achievement

General Category	Examples of Specific Variables
Quantity of Instruction	Allocated Instructional Time Instructional Content Covered Student Engagement in Instruction
Student Motivation for Instruction	Student Classroom Management Student Rewards for "On-task" Behavior
Quality of Instruction	Instructional Events (student mastery of prerequisite content, opportunity for practice, mastery assessment, provisions for transfer and retention)

(a) quantity of instruction, (b) student motivation to engage in instruction, and (c) quality of instruction. Because these variables are viewed as necessary (but not sufficient) conditions for student learning of curriculum across a given instructional time-segment, then it follows that their status must be known in order to interpret the results of an evaluation effort designed to validate the effectiveness of a curriculum program to produce such achievement. More specifically, because research has shown these variables to be of practical importance in the public school setting, information about their status within instruction should provide valuable analytic information to both management and development personnel.

Although less general in scope than the instructional model developed within the Department of Research, Evaluation, and Information Systems (e.g., Vitale, 1977), the Academic Learning Time (ALT) model (see Figure 1) suggested by Berliner (1977) illustrates another conceptual usage of instructional variable information. Briefly, in the ALT model, academic learning time is defined as "on-task" or "engaged time" by students during instruction of appropriate relevant content. Accumulations of ALT by the student upon a

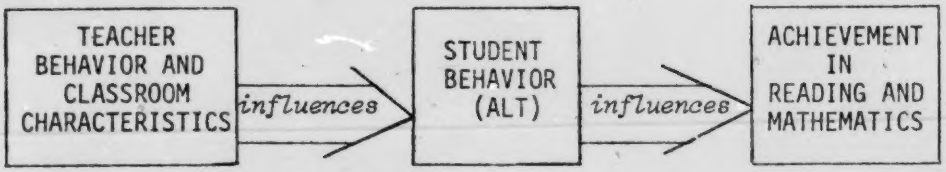
TEACHER BEHAVIOR AND CLASSROOM CHARACTERISTICS
influences
STUDENT BEHAVIOR (ALT)
influences
ACHIEVEMENT IN READING AND MATHEMATICS

Figure 1. A Simplified Academic Learning Time (ALT) Model (Berliner, 1977)

given content than are assumed to produce achievement within that content area. Although a common-sense notion and certainly not a complete explanation, it has provided a useful focus for data collection and analysis of school learning effects (cf, Rosenshine, 1977; Block & Burns, 1977). In addition, as Figure 1 suggests, the ALT model also implies that specific teaching behaviors and classroom management and motivational procedures can be evaluated by determining their impact upon ALT. And, finally, it is likely (Carroll, 1963) that increasing the quality of instruction would reduce the time (i.e., quantity or ALT) needed for learning.

In summary, therefore, since these variables are known to be important practical determinants of performance, under ideal conditions (i.e., instrumentation, manpower) it would seem desirable to assess their status in order to better interpret the results of an evaluation effort as well as to provide such powerful diagnostic information to program development personnel.

Criteria for the Assessment of Process Variables: Table 2 summarizes the major criteria required for rigorous assessment of the instructional variables. Although somewhat overlapping, the four criteria form a practical hierarchical order in that each lower-order criterion is oridinarily required for higher-order criteria to be realized. These criteria, therefore, serve as an abstract methodological test applicable to any form of assessment instrument.

Table 2

Assessment Criteria for Instructional Variables

Criterion	Practical Focus
Construct Validity	Is the intended variable being assessed? Does the intended variable relate to expected criteria?
Reliability/Stability	Does the measured variable exhibit stability across time? Does the measured variable exhibit stability across observers?
Standardization	Is the observational process well-defined and communicable? Is the data-summarization process well-defined and communicable?
Practical Utility	Are the obtained data useful? Is the observation cost reasonable? Is the level of training required of observers realizable?

Relevant Attributes of Assessment Instruments: The question of attributes of assessment instruments is included in this report for two general reasons: (a) to provide an introduction to the descriptions for the assessment instruments in the following section, and (b) to provide a framework for the more general discussion of an assessment program to be considered in the final section. As summarized in Table 3, these attributes suggest a wide possible range of assessment alternatives when attempting to solve a measurement problem. As might be expected, whenever possible, decisions about the type of assessment process are made most easily by attempting to implement the most practical instrument (including cost considerations and personnel training requirements) yielding the minimum acceptable construct validity. However, in reality, practical factors must be traded-off against different levels of validity. For example, although the best form of classroom data might be obtained with trained independent observers, many forms of such data (e.g., content coverage) can be obtained from teacher estimates (for many purposes) with some reduction in validity, but with dramatically reduced cost. Although implied by Table 3, one important but sometimes neglected factor along these lines is the amount and quality of observation

Table 3

Relevant Attributes of Assessments Instruments

Attribute	Example of Major Factors
Summary Level of Information	District, School/Grade, Teacher, Classroom, Individual Student
Data Source	Paper/Pencil Self-Report, Individual Log, Independent Observer
Purpose/Use	Administrative Decision Analytic Status Assessment (Research, Evaluation) Clinical Feedback (program, school, classroom)
Data Type	High Inference (general overall rating), Low Inference (observation of specific details)
Information Sampling Unit	District, School, Teacher, Classroom, Individual students

data needed for the observational unit being summarized. For example, if information is required at the school campus level (within a grade level), then both the amount and "statistical" quality of the data required from each individual student are far less than if information is required of individual students themselves in order to make clinical decisions. In addition, the amount of usable information may sometimes reflect surprising interactions among the types of observational data (i.e., high- vs. low-inference) and the level of training of the observers. For example, research has shown that in many instances, high-inference observational systems yield better (i.e., more useful) information than low-inference ones, presumably partially reflecting the degree to which relevant factors can be made explicit for precise observation for a fixed population of observers. While a pragmatic philosophy is best, at the same time, practical demands seldom allow the development of an assessment system to be based solely upon repeated trial and error. Thus, in summary, it seems reasonable to allow the nature of the information required by a given problem to set the context for an assessment program and then to begin first with existing relevant low-inference observation schemes. When such low-inference instrumentation does not exist, then it seems best to start at the level of high-inference and perhaps self-report instruments while attempting to work toward explicating low-inference observation schemes. Once valid low-inference schemes exist, then, of course, they can (in bootstrap fashion) serve as the basis for the validation of more efficient high-inference and/or self-report survey measures. This ongoing developmental assessment strategy is summarized in Figure 2.

Selected Observation Instruments for Assessing Instructional Variables: This section reviews a total of seven observation systems focusing upon quantity of instruction, student motivation to engage in instruction, and quality of instruction. It should be stressed that the instruments elected for inclusion are those offering greatest promise of usability and, in most cases, reflecting the greatest technological development. Additional scales addressing the amount of instruction and content coverage can be found in Rosenshine (1977). Finally, the instruments included here were selected for their complementary sources of information. A summary of the instruments presented and their major attributes and content appears in Table 4.

Quantity of Instruction. Five instructional observational systems for assessing amount of instructional time will be reviewed. First, the Far West Laboratory for Educational Research (Marliave, Fisher, & Filby, 1977) reported the implementation of a two-phase observational system in which (a) teachers logged the amount of classroom instruction and the amount of time spent in different content areas on either a daily or weekly basis, and (b) independent observers recorded the amount of time students were actually engaged in learning. Thus, within this system, teachers provide information of time allocated for instruction, while observed engaged time can be compared to allocated time to determine the "engagement rate" (or direct instruction) for different classes and/or different specific content areas (e.g., behavioral skills or curriculum content). In general, these researchers have found the resulting data to have adequate reliability and validity (Marliave, Fisher, & Filby, 1977). At the same time, it should be mentioned that because their sample consisted of volunteer teachers, their conclusions of the validity of teacher-estimated allocated times (compared to independent observers) may not be generalizable within the Dallas instructional setting.

Second, the Dallas Independent School District (Vitale, 1975, 1977) has developed a classroom observation system that obtains three levels of instructional time data: (a) planned or scheduled instructional time, (b) actually occurring instructional time, and (c) percent of students "on-task" during actual instruction. In this system, both the instructional time logs and the student "on-task" behaviors are obtained through independent observers. In addition, the system allows the observer to time-sample as many as three (well-defined) classroom groupings (e.g., reading group, spelling workbook group, mathematics workbook group). An inherent difficulty of this scheme is that if activities within the classroom are not easily separated, then the resulting data represent unique combinations (i.e., Reading/Math/Social Studies) of instruction that cannot necessarily be allocated to separate content areas.

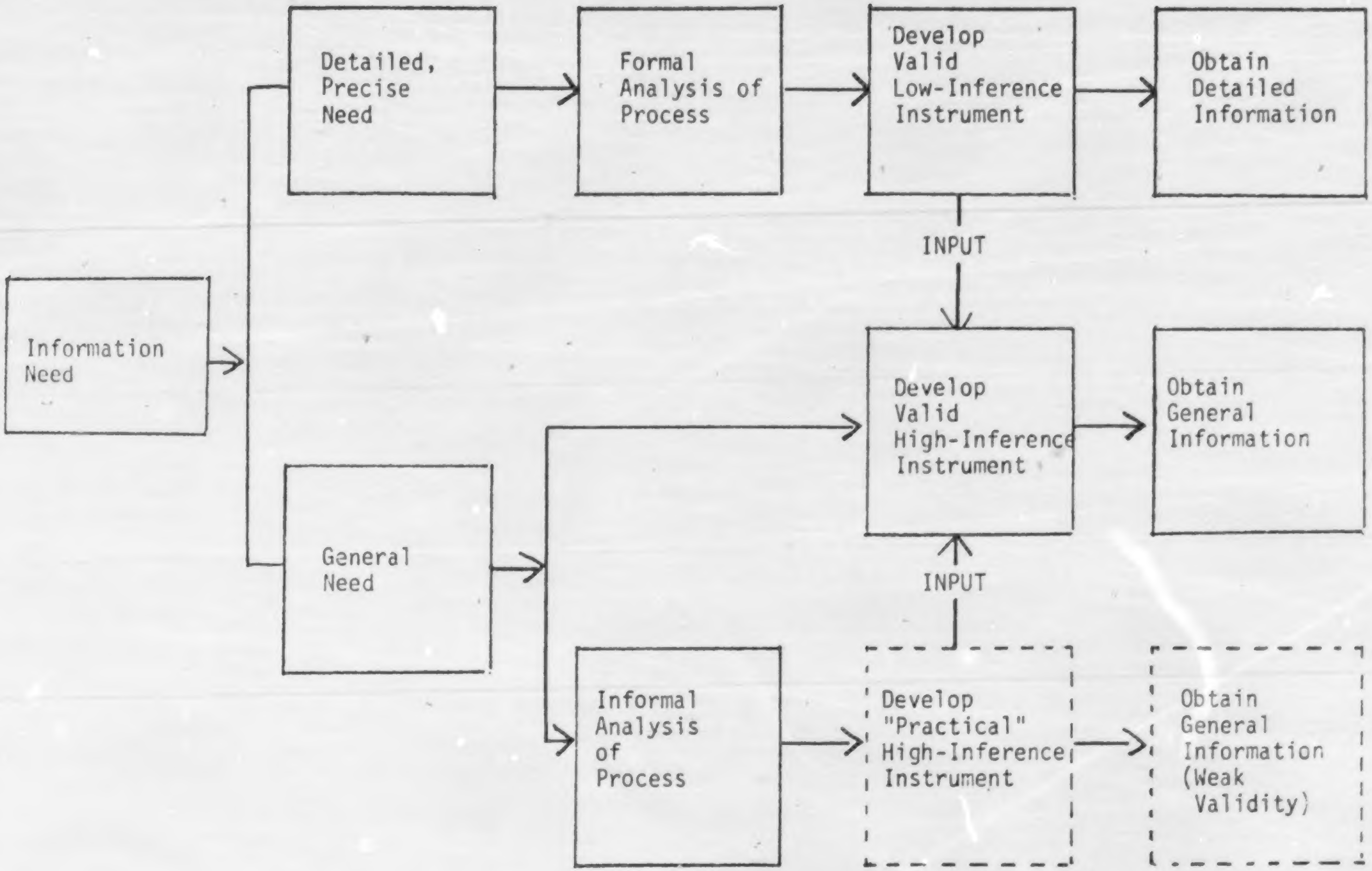
Detailed, Precise Need
Formal Analysis of Process
Develop Valid Low-Inference Instrument
Obtain Detailed Information
INPUT
Information Need
Develop Valid High-Inference Instrument
Obtain General Information
General Need
INPUT
Informal Analysis of Process
Develop "Practical" High-Inference Instrument
Obtain General Information (Weak Validity)

Figure 2. Development of Classroom Assessment System. Dashed lines indicate instrument of temporary value (until valid high-inference measure developed.)

Table 4

Instruments Reviewed in Present Report

Category/Variables	Name of Developer	Information Sampling Unit	Date Source	Data Type	Practical Utility
Quantity of Instruction					
Content Covered, Engaged Time	Far West Laboratory	Classroom	Teacher, Observer	Low-Inference	Good
Classroom Instructional Time	Dallas ISD	Classroom	Observer	Low-Inference	Good
Student Instructional Time	Austin ISD	Student	Observer	Low-Inference	Good
Student On-Task	Madsen & Madsen	Classroom or student	Observer	Low-Inference	Good
Student Attention to Task	Anderson	Classroom and Students	Observer and Student Report	Low-Inference	Good
Student Motivation and Classroom Management					
Student Motivational Consequences	Madsen & Madsen	Classroom or Student	Observer	Low-Inference	Good
Teacher Management Behavioral*	Brophy & Evertson	Classroom	Observer	Low-Inference	Good
Quality of Instruction					
Gagne´s Instructional Events	Bell	Classroom	Observer	Medium-Inference	Good**

*Other parts of this system are not considered here

**Reported by Bell (1976)

Of course, the solution of the Far West Laboratory instrument circumvents this problem by obtaining basic instructional data from teachers, a solution which could be easily adapted to the District instument. Finally, the District instrument yields information only in broad content categories (i.e., Reading, Language Arts, etc.) rather than in specific content areas. In this context, the Far West Laboratory system would be preferable, assuming resources are available to obtain the required data.

The third observation system to be considered, the Pupil Activities Record (PAR) developed by the Austin Independent School District (Holley, Lee, & Hester, 1977) deals with the problem of classrooms within which different instructional events occur simultaneously. In this system, an observer is assigned an individual student on a random basis to track for an entire school day, during which time instructional and noninstructional activities are recorded on a minute-by-minute basis. In addition, this system also requires the recording of the materials with which the student works, along with other information such as group size, instructional setting, and persons delivering instruction. By aggregating the data of individual students across the school year, this system produces a highly representative profile of instructional time and degree of engagement in instruction of the typical student. At the same time, however, it must be stressed that the system is quite expensive to implement because each student sampled requires one observer.

The fourth scheme considered here is composed of a series of observation inventories developed by Madsen & Madsen (1974). Although emphasizing motivational factors relating to classroom management, a number of scales are directed towards assessing student individual (Forms C & D) and group (Form H) "on-task" academic behavior. The instruments within this series have the advantage of being an integral part of a teacher-training program in classroom management, and, thus, emphasize the recording of qualitatively different types of student "off-task" behavior or discipline problems. In addition, in their book, Madsen and Madsen present steps for establishing the reliability of the resulting data.

In each of the four preceding observation schemes, student engagement in instruction is inferred by observing student attention toward the instructional task. However, as Brophey et al. (1976) have argued, many students are highly skilled at "appearing" to be working within the classroom setting. This phenomenon is the reason for Rosenshine's (1977) observation that smaller (vs. larger) differences in instructional time are not likely to produce differential achievement. One possible solution to this problem may be a classroom observational procedure reported by Anderson (1975). Her system consisted of two distinct components: (a) one in which an observer, following a classroom seating chart, watched each student for a period of six seconds and coded the student as being overtly on-task or off-task, and (b) a second simulated recall technique designed to obtain a more precise estimate of covert on-task behavior. In this second component, a tape recording was made of the classroom discussion and then, upon conclusion of the class played back, during which time students indicated what their thoughts were at randomly determined stop-points. (For seatwork, students were simply asked to note their thoughts when the experimenter asked.) Student thoughts then were classified either as task-relevant or irrelevant and the students' percentage of task-relevant thoughts used to adjust each student's estimated total on-task time.

In summary, each of the observational schemes reviewed is of potential value in the description and analysis of the instructional process in terms of learning variables. The question of which will ultimately prove to be of greatest value, or how they could be combined into one general observational system must await future pilot efforts.

Student Motivation and Classroom Management. Two observational schemes will be reviewed in this section: (a) one derived from behavior analysis concepts by Madsen & Madsen (1974) mentioned previously, and (b) a teacher-observation system developed by the University of Texas Research and Development Center for Teacher Education (Brophey & Evertson, 1976a, 1976b). Although couched in terms of student-teacher behavior, the observation system of Madsen & Madsen (Form A, Form B) focuses upon a general motivational 2 x 2 category scheme. Specifically, a student exhibits either appropriate (on-task) behavior or inappropriate (off-task) behavior. Then, contingent upon the behavior exhibited, the teacher (or societal agent) can respond with approval (reward) or disapproval (punishment). Thus, from a standpoint of student motivation, effective management behavior requires either appropriate-approval, or inappropriate-disapproval segments. And management errors, therefore, occur when appropriate behavior receives disapproval or conversely, when inappropriate behavior is recognized with approval. And, finally, by computing the ratio of approvals to approvals plus disapprovals, the affective quality of the classroom can be described. In general, the research literature has supported the importance of the processes observed in producing sustained student on-task behaviors during instruction and, comcomitantly, in reducing mild discipline problems typically produced via teacher attention (approval) to mild disruptive student behaviors.

The general scheme used by Madsen and Madsen has also been incorporated as part of the Dallas system discussed above by alternating the focus of observation between student on-task behavior and teacher reward (or punishment) behavior during the observation period. One difficulty in usage of the teacher reward schedule in practice with both the Dallas and Madsen and Madsen version is that extensive training is required of observers before they can reliably identify teacher reward behaviors when they occur.

The remaining system to be presented in this section has been reported by Brophey and Evertson (1976a, 1976b) in connection with a study of teacher effectiveness. Although too complex to be discussed adequately, this system, unlike the others reviewed here, emphasizes the classroom teaching relationship between students and teacher. It is included, however, for two reasons: (a) its use and validation in a study relating the behaviors of teachers to student academic achievement and (b) its potential relevance to the development of a high-inference classroom observation instrument fitting in with the ALT model discussed previously. Again, although complex, the study reported by Brophey and Evertson tended to support the expectations of the ALT model in that associated with achievement were such variables as a businesslike working environment, teachers' being good managers in the sense

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of constantly being aware of what each student is doing, and high student engagement in academic tasks. In summary, thus, while the instrument itself does not directly focus upon student instructional time and motivation and is not recommended for that reason, it does offer a strong example for the methodological development of an empirically-validated observation system and some implications for assessing the quality of instruction.

Quality of Instruction. As might be expected, instruments for assessing instructional quality are only at the beginning stages of development, and only one, the Instructional Sequence Inventory Scale (ISIS) (Bell, 1976) will be specifically discussed here. However, before beginning, it is appropriate to overview some of the reasons for this conclusion. The organization of this report has followed an implicit three-step sequence. First, quantity of instruction was discussed as the major source of student achievement. Then, student motivation and classroom management were introduced as the basis for engendering student participation in their learning assignments. Then, along these lines the view interpreting teacher and other instructional factors in terms of their impact upon academic learning time (related to what is called the direct instructional model) was introduced. Along these lines, Rosenshine (1977) interprets many of the teaching research findings in his recent review paper. And, finally, instructional quality, however defined in terms of condition for learning would be expected to reduce the amount of time required for learning (cf. Block & Burns, 1977).

On the other hand, traditional teaching research (Rosenshine & Furst, 1973; Popham, 1973), has moved from simply assessing what have been defined a priori as the "characteristics of good teaching" to the point of validating observed characteristics in terms of their contribution to student achievement, such as in the work of Brophey and Evertson (1976a, 1976b). Avoiding an extended discussion, the position of this report is that the concepts contained within the ALT model and the behavior management approaches easily subsume the "traditional" teaching models insofar as providing explicit principles for impacting instructional quantity and motivation are concerned. The remaining issue at this particular time, however, is whether it is more useful to approach the question of instructional quality (i.e., the teaching-learning process) from an orientation of learning-instructional theory or from a teacher-characteristic focus. Note that the issue has nothing to do with whether the teacher's role is important; all would certainly emphasize that it is critical in fact. Rather, the issue is what is the best way to approach research on instructional quality and the development of observational techniques.

Along these lines, the position of this report is that both are important to pursue, but that concepts derived from instructional theory should be dealt with first. Unfortunately, unlike the great number of instruments for teacher observation (Rosenshine & Furth, 1973), there are few observation instruments potentially approaching the role required. Specifically, a review of the literature revealed only the system reported by Bell (1976) as an extension of an observation scheme of Gagne´ (1973). Although little detail was available, Bell's (and Gagne´s) system is a high-inference scale designed to assess critical events of learning (i.e., opportunity for practice, provision for transfer, etc.). However, it is likely that this or similar systems would require a great deal of training by observers on both the events observed and the structure of the curriculum (although Bell reports high inter-observer reliabilities). Thus, beyond this level, it may be that most significant aspects of instructional quality (e.g., curriculum structure, objective-curriculum correspondence) must be determined directly through curriculum analysis techniques (of Stoloff, Huntley, & Vitale, 1977) rather than classroom observation.

Future Development of Observational Systems: A recent departmental report (Vitale, 1977) has outlined an instructional model identifying process variables for impacting student academic achievement, school attitude, and academic self-concept (see Table 5) within a context of evaluation.

Table 5

Selected Instructional Variables for Impacting
Academic Achievement, School Attitude,
Academic Self-Concept (Vitale, 1977)

Performance/Process Category	Process Variable
Cognitive Academic Achievement	
Quantity of Instruction	Instructional Time Scheduled/Planned Instructional Time in Classroom Student Attendance Student On-Task During Classroom Instruction
Motivational Instruction Support	Positive Motivational Consequences Attractiveness of Instructional Task Attributes
Quality of Instruction	Topic Content-Coverage Given Program Objectives Instructional Sequencing of Contents Events of Instruction
School Attitude	
Motivational Consequences	Positive Consequences for Instructional Tasks/ Learning Aversive Control Consequences
Consequence-Free	Attractiveness of School/Instructional Task Attributes
Academic Self-Concept	
Motivational Consequences	Positive Consequences Associated with Academic Success Student Success Consequence of Task Initiation/ Completion

Operationalizing the concepts within the model, of course, requires that each of the variables within it can be measured in accordance with the criteria summarized in this report (see Table 2). The instruments and observational systems included within this report, therefore, represent only a starting point for such a comprehensive system. Primarily, using the attributes in Table 3, these instruments are low-inference measures that focus upon the individual classroom that offer the potential for providing analytic information to program development and management personnel relating to academic achievement. By using the term analytic, it is intended to recognize that the empirical validity of the processes assessed has been well-established by research and accepted by recent theories of the instructional process. However, it is obvious that these instruments (or some combination) will require local piloting before their anticipated usefulness can be realized. In addition, it is likely that for some research and evaluation purposes, say general information to management, it will be necessary to develop more efficient high-inference and/or self-report measures derived from these low-inference schemes. Further, as was pointed out in this paper, it is unlikely that observational or observational-derived instruments can substitute for analysis of curriculum structure and factors related to curriculum planning, implementation, and management. And, finally, assessment techniques for the measurement of processes in the affective areas of attitude and self-concept have progressed little beyond the research and experimentation level. With this in mind, Figure 3 summarizes these considerations and indicates the status and directions of future progress that must occur for the continued systematic improvement of the classroom instructional process.

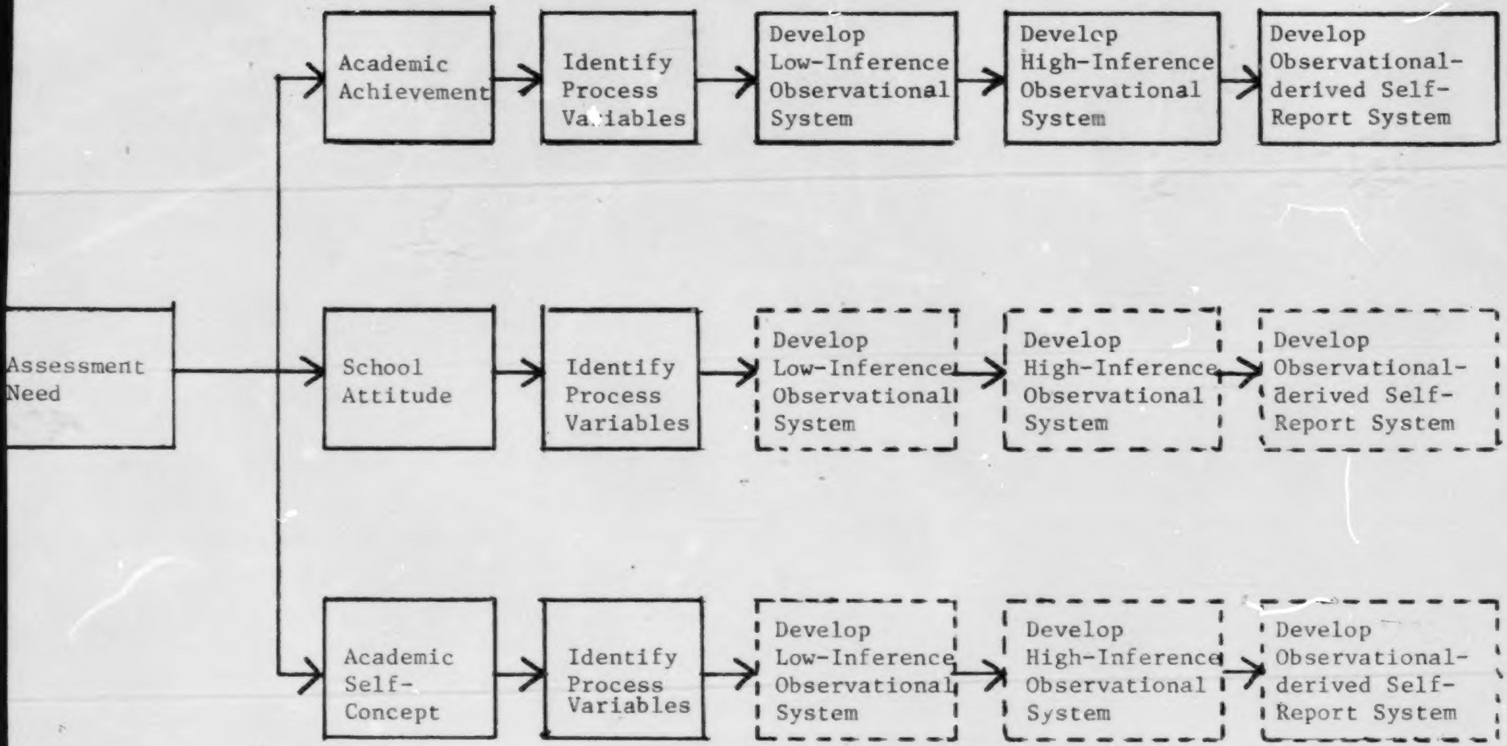
Assessment Need
Academic Achievement
Identify Process Variables
Develop Low-Inference Observational System
Develop High-Inference Observational System
Develop Observational-derived Self-Report System
School Attitude
Identify Process Variables
Develop Low-Inference Observational System
Develop High-Inference Observational System
Develop Observational-derived Self-Report System
Academic Self-Concept
Identify Process Variables
Develop Low-Inference Observational System
Develop High-Inference Observational System
Develop Observational-derived Self-Report System

Figure 3. Stages in development of general classroom observation system for assessing instructional variables impacting academic achievement, school attitude, and academic self-concept. Dashed boxes indicate initial developmental effort is needed. Variables identified within each category are summarized in Table 5.

Additional Information:

AR77-120-8-9 Observational Methods for the Analysis and Assessment of Classroom Instructional Variables Related to Student Academic Achievement, 1977, Michael R. Vitale.

AR77-086-8-9 A Model for Instructional Analysis: Impacting Academic Achievement, School Attitude, and Academic Self-Concept through Evaluation, 1977, Michael R. Vitale.

76-892 A Plan for Applied Research, 1976, Michael R. Vitale.

75-571 Investigation of Classroom Instructional Variables in the Curriculum Areas of Reading, Language Arts, Social Studies, Health-Science and Mathematics, 1975, Michael R. Vitale.

AR77-086-3-9

Abstract

A Model for Instructional Analysis: Impacting Academic Achievement, School Attitude, and Academic Self-Concept through Evaluation

Evaluator: Michael R. Vitale

Purpose: This report outlines the framework of an informal model having potential usefulness in the instructional analysis of educational programs and applied research within the Dallas Independent School District. In doing so, it presents a structured overview of behavioral concepts and principles relating to three student performance areas: (a) academic achievement, (b) school attitude, and (c) academic self-concept (self-esteem). In addition, the report considers the function of applied research within an evaluation context of educational program development and decision-making by management.

Overview: The report consists of five major sections. First the relationship between applied research, evaluation, and program development is discussed in terms of their complementary functions. Second, a behavioral-methodological model is presented in a non-technical fashion stressing major instructional dynamics for impacting the three student performance areas of academic achievement, school attitude, and academic self-concept. Third, an informal decision sequence for management use of applied research information conceptualized in terms of the processes of the model is outlined, along with an idealized example illustrating possible applications. Fourth, a summary list of substantive administrative evaluation questions potentially important to any developmental program designed to impact academic achievement, school attitude, and/or academic self-concept is presented. And fifth, selected technical requirements in relation to instrumentation along with additional applications are considered.

Summary:

Applied Research, Evaluation, and Program Development/Implementation. In this section, the goal of applied research is discussed - the providing of a locally-validated, behavioral technology useful in the development and implementation of educational programs. Additionally, the criterion that applied research information be generalizable across curricula, programs, and teachers is advanced. Within this context the function of the behavioral-methodological model is identified as that of providing a psychologically-based conceptual framework for a behavioral technology relating the complementary functions of program development, evaluation, and applied research. Table 1 summarizes these complementary functions, with the major attributes of the behavioral-methodological model being shown in Figure 1.

Table 1

Supporting Functions of Behavioral-Methodological Model

Activity	Function
Program Development and Implementation	Conceptual Basis for Communicating Administrative and Classroom Management Techniques to Optimize Instructional Effectiveness
Evaluation	
Product Evaluation	Behavioral Framework for Product Definition and Assessment in Terms of Student Performance
Process Evaluation	Focus upon Generalizable Instructional/Motivational Variables for Analytic Program Evaluation
Context Evaluation	Specifies Manipulatable Instructional/Motivational Variables against Which the Relationship of Teacher/Student Characteristics to Program Effectiveness Can Be Evaluated
Applied Research	Basis for Interrelating Local Educational Needs, Empirical Research Priorities, and Theoretical Developments

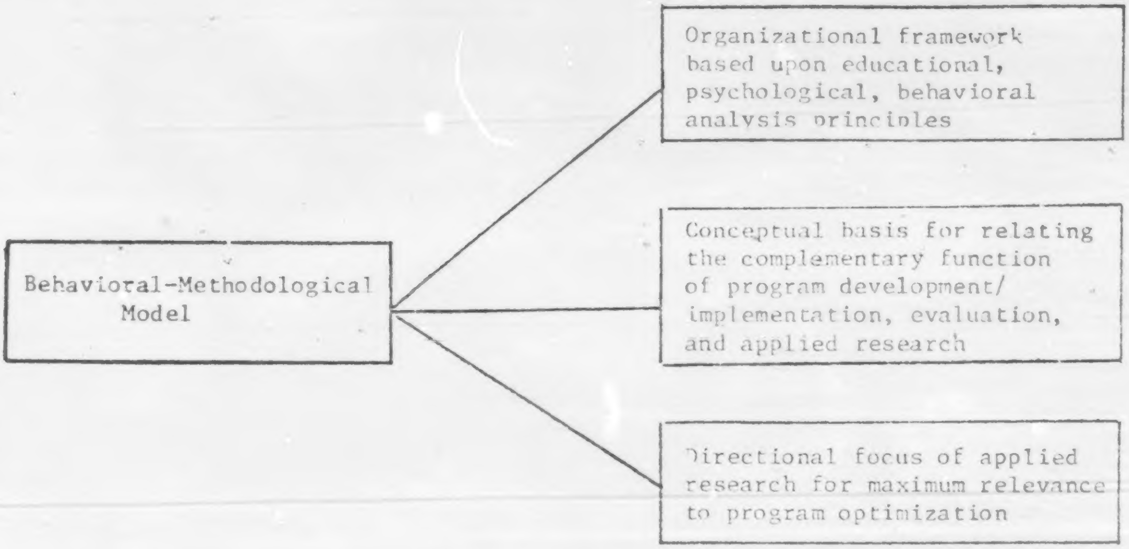
Behavioral-Methodological Model
Organizational framework based upon educational, psychological, behavioral analysis principles
Conceptual basis for relating the complementary function of program development/ implementation, evaluation, and applied research
Directional focus of applied research for maximum relevance to program optimization

Figure 1. Major attributes of the Behavioral-Methodological Model

A Simplified Behavioral-Methodological Model. This section presents a behavioral-methodological model relevant to three areas of student performance: (a) cognitive academic achievement, (b) school attitude, and (c) academic self-concept. Defined informally, academic achievement denotes student mastery of school curriculum assignments, school attitude, whether the student enjoys being in the classroom environment, and academic self-concept, the student's self-valuing of his performance upon academic tasks. Table 2 summarizes the major categories of instructional process variables for impacting each performance area within the model.

Table 2

Selected Variables for Instructional Analysis/Process Evaluation:
Cognitive Academic Achievement, School Attitude, Academic Self-Concept

Performance/Process Category	Process Variable
Cognitive Academic Achievement	
Quantity of Instruction	Instructional Time Scheduled/Planned Instructional Time in Classroom Student Attendance Student On-Task During Classroom Instruction
Motivational Instruction Support	Positive Motivational Consequences Attractiveness of Instructional Task Attributes
Quality of Instruction	Topic Content-Coverage Given Program Objectives Instructional Sequencing of Contents Events of Instruction
School Attitude	
Motivational Consequences	Positive Consequences for Instructional Tasks/Learning Aversive Control Consequences
Consequence-Free	Attractiveness of School/Instructional Task Attributes
Academic Self-Concept	Positive Consequences Associated with Academic Success Student Success Consequence of Task Initiation/Completion

Applied Research and Instructional Analysis in Evaluation. This section presents a sequence of steps distinguishing instructional analysis and applied research using the instructional process variables in the behavior-methodological model presented within a context of process and product evaluation (see Table 2). Then, as illustrated in Figure 2, a decision-sequence for the interpretation of product evaluation outcomes by management is developed.

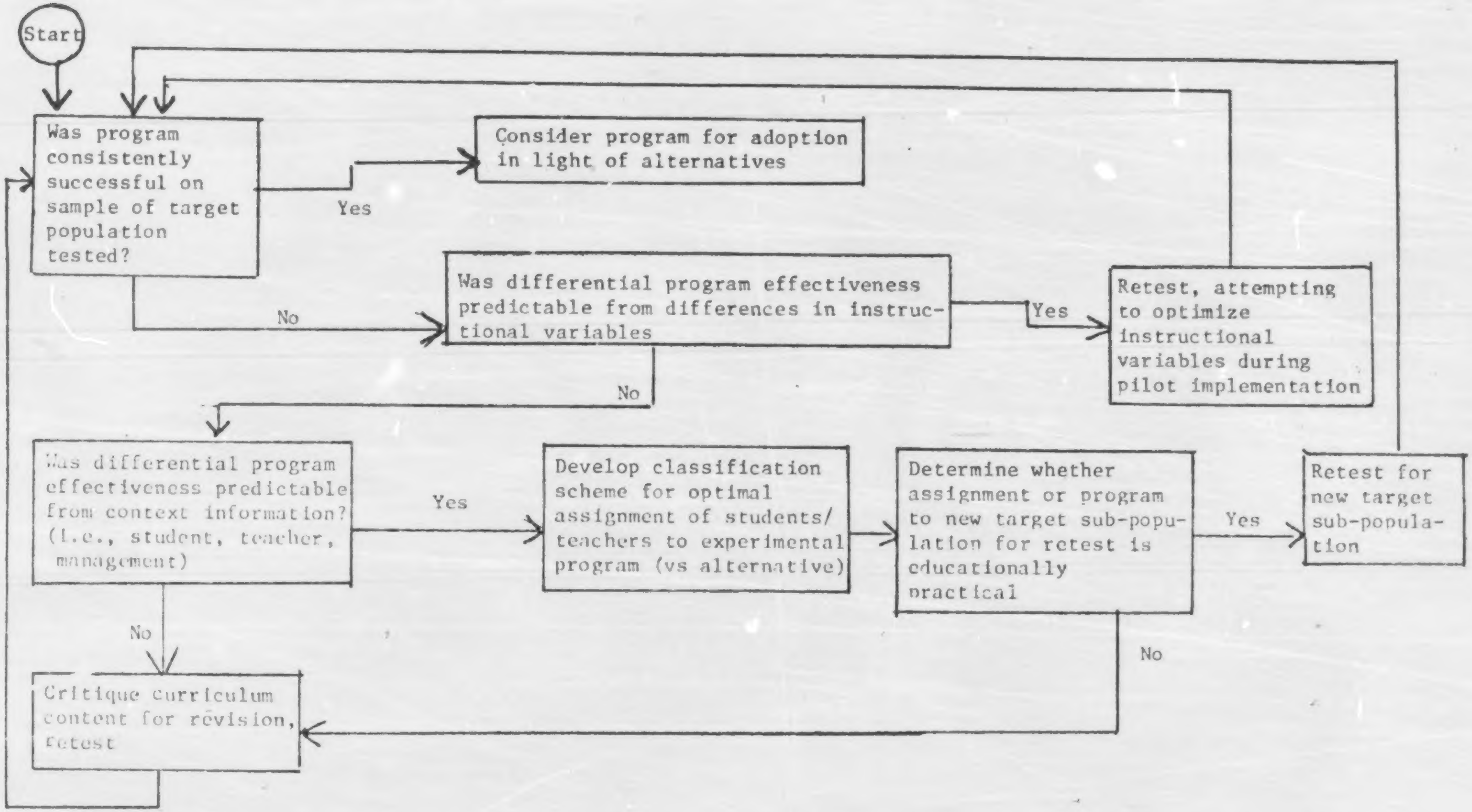
Start
Was program consistently successful on sample of target population tested?
Yes
Consider program for adoption in light of alternatives
No
Was differential program effectiveness predictable from differences in instructional variables
Yes
Retest, attempting to optimize instructional variables during pilot implementation
No
Was differential program effectiveness predictable from context information? (i.e., student, teacher, management)
Yes
Develop classification scheme for optimal assignment of students/teachers to experimental program (vs alternative)
Determine whether assignment or program to new target sub-population for retest is educationally practical
Yes
Retest for new target sub-population
No
No
Critique curriculum content for revision, retest

Figure 2. Decision Sequence for Management Interpretation of Product Evaluation Outcomes via Instructional Analysis/Applied Research Information

Major Evaluation Questions for Instructional Analysis and Management Decision-Making Based upon the Behavioral-Methodological Model. This section first considers the question of verbal algorithms (or "rules") useful for generating evaluation questions for instructional analysis and applied research. Examples illustrating rules for generating them, the range of possible questions, and major variants are shown in Tables 3, 4, and 5 respectively. Next, as summarized in Table 6, evaluation questions relating to management decision-making within the context of evaluation are discussed in terms of the prerequisite prior conditions.

Table 3

Example Showing Rule Sequences for Changing Instructional Analysis Process Variables into Instructional Analysis and Applied Research Evaluation Questions

Sequence/Status	Rule or Algorithm for Evaluation Question Status Change (i.e., 1 to 2, etc.)
1. Amount of instructional time	Ask detailed, descriptive, status question (1 to 2)
2. What was the amount of time devoted to instruction?	Ask whether the instructional process variable relates to performance category (2 to 3)
3. Was the amount of instructional time correlated with achievement?	Ask whether manipulating the instructional process variable would impact the performance category (3 to 4)
4. Does increasing instructional time increase achievement?	Ask either (a) what would be the optimal conditions under which the instructional process variable would have maximum impact, or (b) what would be the optimal amount of the instructional process variable for maximum performance impact (4 to 5)
5. (a) What are the instructional conditions (procedures, students) that allow instructional time to be most efficiently used to realize greatest achievement? (b) How much instructional time is optimal for increasing achievement?	

Table 4

Specific Instructional Analysis Evaluation Questions Following from the Behavioral-Methodological Model

Performance Category/Process Variable	Instructional Analysis Evaluation Question
1.0 Academic Achievement	
1.1 Quantity of Instruction	
1.1.1 Amount of instruction	
1.1.1.1 Administrative	How much instructional time is scheduled administratively?
1.1.1.2 Classroom/Teacher	How much classroom time is spent on instruction?
1.1.1.3 Student on-task	During what percent of instructional time are students actively engaged (i.e., on-task) in learning activities?
1.1.2 Motivation for instruction	
1.1.2.1 Positive Consequences	What are the positive motivational consequences of student achievement (or on-task behavior)?
1.1.2.2 Negative Consequences	What are the aversive consequences of student achievement (or on-task behavior)?
1.2 Quality of Instruction	
1.2.1 Curriculum objectives/content correspondence	What curriculum objectives are directly taught by the instructional content, and what parts of the content are not directly relevant to curriculum objectives?
1.2.2 Curriculum Sequential Validity	What are the prerequisites for student mastery of each curriculum objective, and which curriculum components within the instructional sequence are inconsistent with this hierarchical structure?
1.2.3 Events of Instruction	
1.2.3.1 Gaining and Controlling Attention	What percentage of students exhibit the sustained attention required for learning from an instructional unit?
1.2.3.2 Informing the learner of expected outcomes	What percentage of students can indicate their expected learning objectives for an instructional unit?
1.2.3.3 Stimulating recall of relevant knowledge	What percentage of students exhibit mastery of prerequisite entry level skills for an instructional unit?
1.2.3.4 Presenting stimuli inherent in the learning task	What percentage of the intended learning task is directly included within the teaching method used in an instructional unit?
1.2.3.5 Guidance for learning	What percentage of students receive guidance required for task mastery?

Table 4 (cont'd)

Specific Instructional Analysis Evaluation Questions Following from the Behavioral-Methodological Model (Cont'd.)

Performance Category/Process Variable	Instructional Analysis Evaluation Question
1.2.3.7 Appraising performance	What percentage of students demonstrate curriculum mastery before instruction is terminated?
1.2.3.8 Making provision for transferability	What percentage of students receive additional examples for establishing learning generalizibility?
1.2.3.9 Insuring retention	What percentage of learners receive practice for establishing retention of learned material?
2.0 School Attitude	
2.1 Frequency of positive/negative events	
2.1.1 Task motivational consequences	
2.1.1.1 Positive	What are the positive consequences produced by directly performing in the task?
2.1.1.2 Negative	What are the aversive consequences produced by directly performing in the task?
2.1.2 Positive/Negative Event Ratio	What is the ratio of positive to negative events indirectly associated with the task situation, i.e., not directly behavior-produced?
2.2 Intrinsic task attributes	What are the components of instructional activities toward which students are positively and/or negatively attracted?
3.0 Academic Self-Concept	
3.1 Affective consequences of success	What percentage of students experience a positive affective consequence when achieving success in an instructional unit?
3.2 Student discrimination of self-success	What percentage of students are able to identify the absolute and/or relative success they achieve within an instructional unit?
3.3 Task initiation and follow-through to achieve success	What percentage of students experience the sequence of (task initiation - persistence - success) within an instructional unit?

Table 5

Variants of Single Major Evaluation Question

Performance Category

Academic achievement

Process Variable

1.1.1.3 Quantity of instruction - student on-task

Major Instructional Analysis Evaluation Question

During what percent of instructional time are students on-task?

Selected Descriptive-Status Evaluation Question Variants

What is the distribution of student on-task time during instruction within a classroom?
How does instructional on-task time vary across the length of a lesson?
How does instructional on-task time compare to that realized in other instructional areas?

Yes - No Status Evaluation Question Variants

Are 80 percent of students on-task during ongoing instruction?
Are 80 percent of students on-task during 80 percent of instruction?
Do 80 percent of instructional units maintain 80 percent of students on-task during instruction?

Table 6

Management Decisions Sequenced in Terms of Required Prior Status

Management Decision	Required Prior Status for Decision Question
1. Consider program for adoption?	Program is validated as consistently effective for student population (or sub-population). Student sub-population is educationally meaningful.
2. Retest program, attempting to optimize instructional variables?	Program found differentially effective on population tested. Differential effectiveness related to differences in instructional process variables.
3. Retest program, attempting to validate program effectiveness for specific student sub-population?	Student sub-population (or other context) identified on which program is consistently effective. Student sub-population (or context) is educationally meaningful. Differential program effectiveness for specified student sub-population (or context) cannot be explained by differences in relevant instructional process variables.
4. Total revision of curriculum before retesting?	Program is not consistently effective for any specific student sub-population (or context), under conditions in which relevant instructional process variables are optimal.

Additional Considerations: Instructional Analysis and Applied Research in Instructional Development and Evaluation. This Section Briefly overviews selected technical considerations for instructional analysis and applied research in evaluation and program development and considers other potential areas not stressed in this report.

Additional Information:

AR77-086-8-9 A Model for Instructional Analysis: Impacting Academic Achievement, School Attitude, and Academic Self-Concept Through Evaluation, 1977, Michael R. Vitale.

AR77-120-3-5 Methods for the Analysis and Assessment of Calssroom Instructional Process, 1977, Michael R. Vitale.

Abstract

A Descriptive Study of Instructional Quantity and Student Achievement in Grades 2, 4, and 6

Evaluator: Michael R. Vitale

Introduction: Recent research conducted within the school setting (Block & Burns, 1977; Rosenshine, 1977; Vitale, 1976) has shown three major classes of variables to be both powerful enough to impact academic achievement and practically measurable within the classroom instructional setting: (a) student academic learning time (including content coverage, allocated instructional time, and student "on-task" engagement in instruction), (b) motivation of students to engage in learning tasks (including teacher management practices), and (c) quality of instruction (which reduces the amount of time required for learning). Because these variables (summarized in Table 1) are viewed as necessary (but not sufficient) conditions for

Table 1

Observational Variables Having Major Impact Upon School Achievement

General Category	Examples of Specific Variables
Quantity of Instruction	Allocated Instructional Time Instructional Content Covered Student Engagement in Instruction
Student Motivation for Instruction	Student Classroom Management Student Rewards for "On-task" Behavior
Quality of Instruction	Instructional Events (student mastery of prerequisite content, opportunity for practice, mastery assessment, provisons for transfer and retention)

student learning of curriculum across a given instructional time segment, information about their status in the instructional setting through an informational feedback system ultimately could provide valuable analytic information to evaluation, development, and management personnel in the interpretation of student academic achievement. Along these lines, Rosenshine (1977) has refocused traditional teaching-research findings (cf., Rosenshine & Furst, 1973; Popham, 1973) by interpreting teacher behaviors and other related classroom factors in terms of their direct (or indirect) impact upon student academic learning time. Finally, these sets of variables (in Table 1) couched within the framework of "direct instruction", suggest both a common-sense and empirically-validated basis for the development of more advanced and powerful quantitative models of the school learning process (cf., Atkinson, 1974; Atkinson, 1972; Atkinson & Paulson, 1972; Carroll, 1973, 1963; Chant & Luenberger, 1974; Suppes et al., 1976; Uprichard, 1975; Walberg, (1971); Wiley & Harnischfeger, 1974).

Purpose: The major purpose of this investigation was to obtain descriptive information through classroom observation of a District-wide representative sample of second-, fourth-, and sixth-grade classrooms regarding the following instructional time variables: (a) the amount of daily instruction planned, (b) the daily amount of time actually allocated to academic instructional activities, (c) the daily amount of time during which the typical student is actively engaged in instructional activities, and (d) the percentage of students typically engaged in instruction when it is ongoing. In addition, the study attempted to determine whether selected factors such as grade level, subject content area, and school subdistricts were related to selected instructional time variables and whether differences in student instructional time were associated with standardized test achievement in Reading, Language Arts, and Mathematics. Finally, the descriptive data summarized within this report will serve as the basis for the construction of District-wide norms for each of the instructional time variables in a complementary technical report (Vitale, 1977) for use by District development, instructional, and evaluation personnel.

Sample and Design: Table 2 summarizes the number of classrooms observed within each grade within each of the five administrative subdistricts. The specific schools participating in the study (shown in Table 3) were sampled randomly after being stratified by subdistrict. In areas 1, 2, and 3, schools were stratified and selected separately for grades 2 and grades 4-6 because of the court-ordered desegregation plan requiring bussing beyond grade 3. Within each school selected for observation at a given grade level, a classroom section (i.e., 2A, 4C, etc.) was chosen randomly for observation after excluding special education units. Classroom observations were conducted over a four-week period beginning March 14, 1977, through April 6, 1977, excluding the District-wide Easter vacation during the week of March 20, 1977. The specific classroom within each subdistrict and grade level observed on a given day was in accordance with a sampling strategy following an incomplete block design that minimized confounding between the factors of subdistrict, grade-level,

Table 2

Number of Classrooms Observed by Subdistrict and Grade[1]

Subdistrict[2]	Grade 2	Grade 4	Grade 6
1 (NW)	6	7	7
2 (NE)	10	9	10
3 (SE)	6	6	6
4 (EOC)	10	11	8
5 (SW)	9	10	9

[1] N = 124

[2] Sub-districts are Northwest (NW), Northeast (NE), Southeast (SE), East Oak Cliff (EOC), and Southwest (SW).

Table 3

Schools Sampled within Each Grade-Level by Subdistrict

Subdistrict	Grades	Schools
1 (NW)	2	Kramer, Hotchkiss, Fannin, Travis
	4-6	Preston Hollow, Burnett, Rogers, Foster
2 (NE)	2	Colonial, Conner, Sanger, Wheatley
	4-6	Bayles, Lee, Roberts, Rowe
3 (SE)	2	Macon, Rhoads, Anderson, Lagow
	4-6	San Jacinto, Blanton, Rylie, Blair
4 (EOC)	2-4-6	Bowie, Budd, Harllee, Marsalis
5 (SW)	2-4-6	Arcadia Park, Carpenter, Reagan, Turner

and day of week. In addition, observers were assigned randomly to blocks of schools representing grade (2, 4, 6) sequences within each subdistrict for the duration of the study. The number of days any specific classroom within a school was observed across the four-week period ranged from one to four.

Observers were either teachers selected from the District substitute teacher roles or graduate students in psychology attending an area university. Observer training consisted of a two-day period during which observers worked with Research and Evaluation personnel while engaging in supervised and unsupervised observation. Throughout the study, observers were monitored systematically by both Research and Evaluation personnel and additional observers in order to identify observation problems and verify the validity of each observer's procedures for recording data.

All observers were requested to obtain four major types of data: (a) each teacher's daily plans for all instructional and non-instructional activities, (b) logs of the number of minutes observed for all academic instructional activities (i.e., Reading, Language Arts, etc.), (c) a continuous time-sample of the percentage of students observed to be on-task during instruction, and (d) rosters of students enrolled within the class sections observed in the areas of Reading, Language Arts, and Mathematics.

The resulting data were first summarized by day for each classroom observed, coded, and keypunched for computer analysis. The resulting "raw" instructional time data were preprocessed for subsequent analysis by the SPSS programming system by weighing the daily instructional time assigned each subject area within a classroom by the percentage of students assigned that academic task (i.e., if 50% of the students were assigned Reading for two hours, the weighted instructional time was considered to be only one hour, or 50%) and then merging with each daily record the mean Iowa Test of Basic Skills (ITBS) fall and spring grade-equivalent scores for the Reading, Language Arts, and Mathematics subtests for a given classroom.

The specific evaluation questions addressed by the analyses were as follows:

1. For each major academic curriculum area at each grade level, what percentage of students were observed "on-task" during instruction, and was the percentage of students "on-task" related to grade-level, academic curriculum area, and school subdistrict?

2. For each major curriculum area at each grade level, what was the amount of instructional time during which students were actively engaged in instruction, what was the amount of time allocated to instruction, and was the amount of time engaged in instruction related to grade level and school subdistrict?

3. For each major academic curriculum area at each grade level, what was the amount of time planned for instruction and what was the ratio of time allocated to instructional time planned?

4. For the basic skill curriculum areas (Reading, Language Arts, Mathematics), was student standardized test achievement during the 1976-77 school year related to the amount of time engaged in instruction?

Results:

1. Table 4 summarizes the percentage of students observed "on-task" during instruction by Grade, Curriculum Subject Area, and School Subdistrict. As shown in Table 4, significant differences due to Grade and Subdistrict were observed, although in most cases, they were not large. For curriculum subject areas, significant differences in "on-task" behaviors were observed only for unmixed instruction (i.e., only Reading vs. Reading/Mathematics).

Table 4

Mean Percentage of Students "On-task" during Instruction

Factor	N	Mean	Standard Deviation
Total	493	72	17
Grade	(F_2,490 = 3.34, $p<.05$)		
2	173	75	16
4	167	70	18
6	153	73	18
Curriculum Area[1,2]	(F_5, 449 = 2.83, $p<.05$; for unmixed instruction)		
*R	106	77	16
R/LA	24	75	9
R/M	3	70	5
*LA	121	73	17
LA/M	6	76	11
LA/SS	9	67	20
*M	119	71	17
*SS	59	70	16
SS/SCI	1	77	0
*SCI	32	65	23
H/SCI	13	73	17
Sub-district	(F_4, 448 = 8.09, $p<.001$)		
1 (NW)	84	75	18
2 (NE)	123	77	15
3 (SE)	64	75	15
4 (EOC)	121	66	18
5 (SW)	101	71	16

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[1] Curriculum areas are: Reading (R), Language Arts (LA), Mathematics (M), Social Studies (SS), Science (SCI), Health-Science (H/SCI)

[2] Asteriks (*) indicate unmixed instruction; slashes (/), combined instruction

Table

Minutes of Daily Instruc
and Student Engaged I
for Each Curriculum Area

Grade Level	Instructional Time Measure[a]	R	LA	R/LA	R/M	L
		SUBJECT				
2	RET	40.7	17.8	3.7	46.0	15.
	ENG	31.9	12.9	2.5	35.2	11.
	PCT	73.3	72.4	68.0	76.6	75.
4	RET	26.5	27.4	0	32.3	0
	ENG	19.5	20.9	0	23.1	0
	PCT	73.6	76.3	0	71.5	0
6	RET	39.2	10.1	0	34.4	0
	ENG	29.2	8.1	0	25.5	0
	PCT	74.5	80.0	0	74.1	0
Total	RET	35.4	18.4	1.2	37.5	4
	ENG	26.8	13.9	.8	27.8	3.
	PCT	75.6	75.6	68.0	74.2	75

[a] RET = Instructional Elapsed Time; ENG = Instruction Time duri
and PCT = Percent of students "on-task" during instruct

e 5

ctional Elapsed Time
Instructional Time
in Grades 2, 4, and 6

REA							
	LA/M	LA/SS	M	SS	SCI	H/SCI	Total
.4	0	30.6	6.1	.8	5.9	.6	169.2
.7	0	21.6	4.7	.6	4.6	.55	126.4
.8	0	70.1	76.8	77.7	78.4	86.0	74.7
	12.6	34.0	18.2	0	11.1	5.7	172.9
	7.8	26.2	12.0	0	6.9	4.5	121.0
	61.9	70.7	66.0	0	62.1	78.7	70.0
	5.0	37.0	22.2	0	5.5	6.4	165.0
	4.3	28.1	16.4	0	3.8	4.2	119.6
	85.5	70.6	74.0	0	69.3	64.5	72.5
.9	6.0	35.9	15.6	.3	7.4	4.3	167.7
.8	4.0	25.3	11.2	.2	5.1	3.1	122.3
.8	67.1	70.5	71.6	77.7	68.0	72.7	72.9

ing which students were "on-task";
tion.

2. Table 5 summarizes the percentage of students on-task during instruction at each grade level along with the observed number of minutes of student engaged time and the number of minutes of allocated (elapsed) instructional time for each curriculum instructional combination. As inspection of Table 5 shows, the majority of instructional time was devoted to the basic skills areas of Reading, Language Arts, and Mathematics. In general, the total amount of engaged instructional time over all academic areas was approximatelu two hours each day.

Focusing more closely upon the basic skills curriculum areas, Analysis of Variance revealed a significant difference between school subdistricts in the total amount of engaged time in Reading ($F_{4, 222} = 3.35$) and in Mathematics ($F_{4, 222} = 4.15$). However, no other significant differences among either subdistricts or grade levels in the amount of engaged time were discovered with the exception that fourth-grade Language Arts time was found to be less than second- and sixth-grade students ($F_{4, 222} = 4.07$). The amount of engaged time for the total amount of instruction in the basic skills areas for the five school subdistricts is summarized in Table 6.

Table 6

Mean Daily Minutes
of Instructional Engaged Time by Sub-District:
Total Reading, Language Arts, and Mathematics Instruction[1]

Sub-District	Total Instructional Time	Reading		Language Arts		Mathematics	
		Total[1]	Specific[2]	Total[1]	Specific[2]	Total[1]	Specific[2]
1 (NW)	126	37.8	24.9	88.4	32.6	23.5	23.5
2 (NE)	134	50.5	27.0	84.0	32.9	30.1	29.8
3 (SE)	135	50.6	32.3	84.8	28.3	30.2	26.0
4 (EOC)	112	33.6	26.9	78.5	18.9	37.6	26.3
5 (SW)	108	37.6	24.6	71.2	27.7	25.0	20.2

[1] Total instruction = mean daily duration of subject taught either alone or in combination with other subjects

[2] Specific instruction = mean daily duration of that subject taught alone

3. Table 7 compares the amount of planned and observed instructional time for the major academic curriculum areas at each grade level. In inspecting Table 7, the reader should note that

Table 7

Mean Daily Minutes of Planned and Observed Elapsed Time for Academic Instruction in Grades 2, 4, and 6

Grade		RD,LA	M	LA/SS	SS	SCI	H-SCI	Safety	Other Academic	PE	Non-Academic	Total Academic	Total Time
	Planned	150.1	47.4	---	12.6	11.0	1.5	---	27.1	30.7	55.5	249.7	362.3
2	Real ET	104.5	30.6	---	6.1	5.9	.6	---	27.5	---	---	162.2	162.2
	Pct ET	69.6	64.6	---	48.4	53.6	40.0	---	98.6	---	---	65.0	44.8
	Planned	148.0	53.4	26.3	32.2	18.3	1.2	31.11	3.4	27.0	39.1	282.8	381.7
4	Real ET	86.2	34.0	12.6	18.2	11.1	5.7	---	5.1	---	---	172.9	172.9
	Pct ET	58.2	63.7	47.9	56.5	60.7	475.0	---	---	164.5	---	61.1	45.3
	Planned	95.8	60.2	38.7	36.8	13.2	14.0	27.8	7.8	21.8	63.9	264.4	382.1
6	Real ET	91.3	35.9	4.0	15.6	7.4	4.3	---	5.7	---	---	164.2	164.2
	Pct ET	95.3	59.6	10.3	42.4	56.1	30.7	---	73.1	---	---	62.1	43.0

Reading and Language Arts were pooled together because teachers' plans generally reported them as simultaneous classroom activities. In addition, it should be noted that the total numbers of minutes reflect differences in lengths of school days between grades 2 and grades 4 and 6. In general, it can be seen that classrooms typically engaged students in instruction, approximately 45 percent of the total school day, but approximately 65 percent of the time during that planned for instruction.

4. Using student fall ITBS scores as a concomitant variable, along with curriculum area (Reading, Language Arts, and Mathematics) and grade level (2, 4, 6), Multiple Regression Analysis revealed that the relationship between the amount of engaged instruction (in the specific subject area) and student academic achievement, although small in magnitude, reached the level required for statistical significance ($F_{1,222} = 3.76$, $p = .05$). However, the amount of specific instruction engaged in with other subjects (i.e., combinations) and non-specific instruction (i.e., non-Reading, non-Language Arts, and non-Mathematics) were not found related to achievement. Interpreting these results, the reader should keep in mind that the research literature suggests that while only large differences in instructional time are likely to be associated with achievement differences, using classroom-means as the experimental unit (rather than obtaining an analyzing both instructional time and achievement data on each individual classroom student) was a highly conservative (although valid) form of analysis. In addition, because of the from of the data (class-group), which was planned primarily to provide respesentative normative information, interactions among student ability level and amount of instructional time could not be investigated in the present study.

Additional Information:

AR77-078-9-9 A Descriptive Study of Instructional Quantity and Student Achievement in Grades 2, 4, and 6, 1977, Michael R. Vitale.

AR77-086-3-9 A Model for Instructional Analysis: Impacting Academic Achievement, School Attutude, and Academic Self-Concept Through Evaluation, 1977, Michael R. Vitale.

AR77-120-3-9 Observational Methods for the Analysis and Assessment of Calssroom Instructional Variables Related to Student Academic Achievement, 1977, Michael R. Vitale.

76-892 A Plan for Applied Research, 1976, Michael R. Vitale.

75-571 Investigation of Classroom Instructional Variables in the Curriculum Areas of Reading, Language Arts, Social Studies, Health Science, and Mathematics, 1975, Michael R. Vitale.

75-571

Investigation of Classroom Instructional Variables in the Curriculum Areas of Reading, Language Arts, Social Studies, Health-Science, and Mathematics

Purpose of the Evaluation: This investigation was conducted to assess within the Dallas Independent School District (DISD) levels of relevant classroom instructional variables that affect student cognitive achievement, school attitude, and self-concept in the areas of Reading, Language Arts, Social Studies, Health-Science, and Mathematics. More specifically, the investigation consisted of a district-wide survey of teachers regarding three important categories of instructional processes within each curriculum area: classroom time devoted to instruction, student classroom problems, and estimated classroom instructional effectiveness. In addition, the investigation consisted of a small-scale study directly observing instructional-time variables and teacher management (motivational) behaviors, intended to complement the more general teacher survey.

The specific evaluation questions investigated were as follows:

1. What were teacher estimates of levels of selected instructional process variables relating to Student Instructional Time, Student Classroom Problems, and Instructional Effectiveness in reading, language arts, social studies, health-science and mathematics classrooms?

2. What levels of process variables relating to Student Instructional Time and Teacher Management Behaviors were found through observation of specific DISD third-grade classrooms?

Sample: The sample for the first evaluation question consisted of a twelve percent random sample of DISD teachers; that for the second evaluation question, of a total of eight elementary schools, four identified as high-achieving and four identified as low-achieving, via school-achievement profiles. Within each elementary school selected, either a self-contained classroom or a series of classrooms chosen to simulate a single student's daily schedule was selected randomly for observation.

Evaluation Design: For the teacher survey, the Teacher Instructional Questionnaire (TIQ) was constructed to obtain teacher estimates of each of the three categories of instructional process variables surveyed. Linear-models analyses of the resulting data for each variable were then conducted to identify differences among the curriculum areas and grade levels, after equating all responding teachers for initial differences on the following concomitant variables: years of teaching experience, ethnicity, highest degree obtained, classroom ethnic composition, and class size.

For the direct observation of classroom instruction, observers from the Department of Research and Evaluation (R&E) obtained data over a one-week period relating to the percent of students engaged in ongoing instructional activities (e.g., on-task) in relation to the amount of planned, scheduled, and realized classroom instruction, along with the frequency of five distinct categories of teacher-management behaviors (neutral, positive-appropriate, positive-inappropriate, negative-appropriate, and negative-inappropriate), all for each of the five curriculum areas. However, because of the small sample of schools involved--a limitation reflecting the available number of observers--statistical treatment of the resulting data was restricted to descriptive indices alone.

Evaluation Results: The major trends found in the data for each evaluation question were as follows:

1. Table 1 below summarizes the levels of the instructional-time process variables surveyed for each of the five curriculum areas. Linear-models analysis revealed a significant difference only among hours of instruction (per week) for the curriculum areas. The effect of grade-level, however, was found significant for three variables: instructional hours per week, percentage of students off-task, and percent of students absent. In general, the trends associated with grade levels (see Table 2) showed a gradual increase in instructional hours per week from kindergarten through grade seven, followed by a leveling-off. Those for the remaining two variables showed similar trends augmented by a slight downturn at grade twelve and a slight upturn from grade two through kindergarten. Tables 3 and 4 summarize the reductions to scheduled instructional-time computed by successively subtracting the "negative" effects of teacher support activities, student off-task behavior, and student absences.

TABLE 1

Mean Instructional Time and Instructional Time-Related Variables
Reported by Teachers in Each Curriculum Area

		Instructional Variables			
			Percent Estimated Non-Instructional I-H/W		
Curriculum Area	No. Teachers	Instructional Hours/Wk (I-H/W)	Teachers Classroom Instructional Support	Students Off-Task	Students Absent
Reading	148	4.32	13.1	9.4	5.0
Language Arts	161	3.65	12.3	9.4	5.1
Mathematics	136	3.82	11.6	11.6	6.1
Social Studies	158	3.01	11.2	10.3	5.3
Health-Science	120	2.59	9.6	9.3	5.9

Table 5 shows the percent of students evidencing each problem category surveyed for the five curriculum areas, indicating that non-school environment, learning-motivation, learning-remediation, and classroom-discipline occurred most frequently. Linear models analyses revealed no significant differences between curriculum areas on

TABLE 2

Mean Daily Instructional Time and Instructional Time-Related Variables Reported by Teachers at Each Grade Level

Level	Teachers	Instructional Variables			
			Percent Estimated Non-Instructional I-H/W		
		Instructional Hours/Week (I-H/W)	Teacher Classroom Instructional-Support	Students Off-Task	Students Absent
K	68	10.90	8.9	15.5	6.5
1	135	14.45	13.0	7.0	4.9
2	122	15.60	9.7	6.1	4.0
3	95	16.55	7.6	6.9	3.7
4	49	20.35	18.5	9.0	5.1
5	66	19.75	15.4	13.5	4.0
6	52	20.45	12.8	14.8	4.8
7	23	24.90	8.7	15.7	8.2
8	25	22.45	10.1	14.8	9.8
9	36	22.25	12.6	11.6	8.4
10	13	22.20	16.1	10.0	12.2
11	31	22.50	12.7	13.1	9.1
12	8	22.60	7.5	4.7	6.1

TABLE 3

Mean Percent of Instructional Time Remaining after Cumulatively Subtracting Non-Instructional Factors for Each Curriculum Area

Curriculum Area	No. Teachers	Instructional Hours/Week[a] (I-H/W)	Percent of I-H/W Remaining		
			Minus Tch. Ins. Support (TIS)	Minus TIS & Students Off-Task (SOT)	Minus TIS, SOT & Students Absent (SA)
Reading	148	4.32	86.8	78.8	75.0
Language Arts	161	3.65	87.6	79.3	75.1
Mathematics	136	3.82	88.4	77.9	73.4
Social Studies	158	3.01	88.7	79.5	75.4
Health-Science	120	2.59	90.3	81.7	76.8
Total	723	17.50	88.3	79.4	75.1

[a] I-H/W equated to 100 percent

TABLE 4

Mean Percent of Instructional Time Remaining after Cumulatively Subtracting Non-Instructional Factors for Each Grade Level

Grade Level	No. Teachers	Instructional Hours/Week (I-H/W)[a]	Percent of I-H/W Remaining Minus TIS Ins. Support (TIS)	Minus TIS & Students Off-Task (SOT)	Minus TIS,SOT & Students Absent (SA)
K	68	10.90	91.1	77.0	71.9
1	135	14.45	86.9	80.5	76.3
2	122	15.60	90.3	84.6	81.1
3	95	16.55	92.3	85.8	82.5
4	49	20.35	81.4	73.8	69.8
5	66	19.75	84.5	74.6	71.8
6	52	20.45	87.1	74.0	70.6
7	23	24.90	91.2	77.1	70.8
8	25	22.45	89.8	76.5	69.6
9	36	22.25	87.3	76.8	70.4
10	13	22.20	83.8	74.6	65.0
11	31	22.50	87.2	75.2	69.0
12	8	22.60	92.5	87.8	82.3

[a] I-H/W considered 100 percent

any problem category; however, significant differences among grade-levels were found on all problem categories except classroom-social. Trends (see Table 6) for frequencies of problems reported followed the same general patterning identified previously (i.e., peaking at junior-high, slightly higher at kindergarten, lower at grade twelve), with the exception of school attitude, for which the percentage of students having problems increased consistently over grades K through twelve.

Table 7 shows the amount of teacher time spent in dealing with each of the problem categories in each curriculum area. In general, greater amounts of teacher time were associated with more frequent problems (see Table 5), with the exception of those problems reflecting out-of-school effects. Linear models analyses of these data revealed a significant difference between curriculum areas only on learning-remediation, with the effect of grade levels being found significant for five problem categories: attendance, classroom-discipline, classroom-social, learning-remediation, and school-attitude. Trends for teacher-time devoted to the five categories (see Table 8) paralleled those found previously (peaking at junior-high, etc.) with the exception of time spent on school attitude problems, which displayed no simple, interpretable grade-trend.

TABLE 5

Mean Percent of Students Evidencing Each Problem-Category
As Estimated by Teacher in the Five Curriculum Areas

Curriculum Area	No. Teachers	Student Problem Category							
		Attendance	Classroom Discipline	Classroom Social	Learning Motivation	Learning Remediation	School Attitude	School Self-Concept	Non-School Environment
Reading	139	5.4	10.1	7.5	9.8	8.8	4.2	5.6	12.2
Language Arts	152	5.0	9.5	6.6	9.9	7.6	3.5	4.9	11.3
Mathematics	128	6.1	9.9	6.9	11.6	8.7	5.2	6.5	11.8
Social Studies	148	5.0	9.7	6.8	10.6	8.2	4.5	6.1	12.5
Health-Science	115	5.9	8.8	5.9	10.5	8.7	3.9	5.1	11.7
Total	682	5.5	9.6	6.8	10.4	8.3	4.2	5.6	11.9

TABLE 6

Mean Percent of Students Evidencing Each Problem-Category As Estimated by Teachers at Each Grade Level

Grade Level	No. Teachers	Student Problem Category							
		Attendance	Classroom Discipline	Classroom Social	Learning Motivation	Learning Remediation	School Attitude	School Self-Concept	Non-School Environment
K	71	5.7	12.2	9.1	11.3	7.9	1.9	2.6	13.3
1	121	4.9	9.6	5.3	7.5	7.0	1.2	3.2	8.7
2	110	3.5	8.7	8.0	8.2	6.0	2.2	3.1	9.3
3	95	4.9	10.7	6.3	10.5	6.6	3.8	5.1	13.0
4	48	4.7	8.5	9.7	12.2	12.1	2.7	6.1	18.9
5	52	4.1	9.2	4.9	9.7	6.5	4.3	5.5	10.0
6	52	3.8	10.2	8.1	11.6	9.8	7.3	8.5	11.1
7	20	7.4	13.8	7.6	16.3	13.0	7.1	9.8	14.5
8	26	9.4	8.2	5.1	13.5	11.3	9.5	12.6	10.9
9	36	8.4	8.7	5.2	13.4	11.4	8.8	11.4	11.7
10	12	14.9	6.0	3.6	9.7	9.6	10.5	7.9	15.2
11	31	10.9	8.1	5.8	15.9	13.5	10.8	11.1	19.2
12	8	4.6	1.3	2.6	6.7	2.3	13.2	4.0	11.0

TABLE

Mean Percent of Teacher-Tim
Problem Category in the

Curriculum Area	No. Teachers	Attendance	Classroom Discipline	Classroom Social
Reading	139	4.2	15.8	9.6
Language Arts	152	3.7	15.1	8.5
Mathematics	128	4.4	15.8	8.3
Social Studies	148	3.6	14.8	9.2
Health-Science	115	3.7	14.0	7.9
Total	682	3.9	15.4	8.7

7

e Spent Dealing with Each
Five Curriculum Areas

Student Problem Category				
Learning Motivation	Learning Remediation	School Attitude	School Self-Concept	Non-School Environment
16.7	18.1	7.7	11.7	6.8
16.0	14.9	7.4	10.3	6.2
14.4	13.5	6.5	9.8	5.7
16.2	13.7	7.6	9.4	6.1
13.7	10.7	5.9	8.0	5.0
15.5	17.3	7.1	9.9	6.0

TABLE 8

Mean Percent of Teacher-Time Spent Dealing with Each Problem Category in Each Grade Level

Grade Level	No. Teachers	Student Problem Category Attendance	Classroom Discipline	Classroom Social	Learning Motivation	Learning Remediation	School Attitude	School Self-Concept	Non-School Environment
K	71	5.5	[illegible].4	15.5	18.4	13.1	8.3	9.3	7.2
1	121	2.9	18.3	7.8	15.4	11.2	4.0	6.3	3.3
2	110	2.7	11.2	9.0	11.7	11.4	7.8	10.6	5.9
3	95	2.2	14.0	5.2	10.1	13.6	4.2	10.4	6.0
4	48	4.0	11.6	8.2	23.4	21.6	8.1	15.1	5.4
5	52	3.0	17.4	8.6	15.9	13.7	6.2	10.4	6.2
6	52	4.5	15.6	14.4	20.3	23.8	12.6	11.7	10.1
7	20	4.0	23.8	12.9	11.8	18.2	10.7	12.2	10.7
8	26	5.0	10.1	6.6	14.0	10.1	5.8	8.1	5.9
9	36	4.6	13.1	4.8	17.9	12.3	8.8	9.1	4.8
10	12	15.9	11.3	5.6	21.2	30.4	14.5	18.0	9.7
11	31	7.8	9.3	4.9	17.3	14.4	6.8	8.5	5.7
12	8	3.2	3.0	3.0	16.3	10.1	7.7	5.1	4.7

TABLE 9

Mean Percent of Students for Each Instructional Effectiveness Variable Estimated by Teachers in the Five Curriculum Areas

Curriculum Area	No. Teachers	Instructional Effectiveness Variables					
		Academically Prepared at Years Start	Evidenced Adequate Learning-Rate	Had Needed Learning Materials Available	Received Individual Attention Needed to Learn	Evidenced Sufficient Educational Maturity	Mastered Work Assigned During Year
Reading	138	50.0	51.6	76.6	61.8	59.5	58.3
Language Arts	147	50.5	54.0	74.4	62.3	61.3	60.5
Mathematics	126	50.9	54.3	76.6	63.6	60.5	59.6
Social Studies	147	53.5	58.1	76.5	64.1	61.7	61.4
Health-Science	118	54.2	59.5	76.3	61.9	62.6	62.6
Totals	676	51.8	55.4	76.0	62.8	61.8	60.5

TABLE 10

Mean Percent of Students for Each Instructional Effectiveness Variable Estimated by Teachers in Each Grade Level

Grade Level	No. Teachers	Instructional Effectiveness Variables					
		Academically Prepared at Years Start	Evidenced Adequate Learning-Rate	Had Needed Learning Materials Available	Received Individual Attention Needed to Learn	Evidenced Sufficient Educational Maturity	Mastered Work Assigned during Year
K	73	54.4	60.3	74.9	63.5	64.6	67.7
1	128	51.3	55.0	87.6	66.4	62.3	60.0
2	111	48.8	49.9	70.5	57.3	58.4	56.9
3	83	62.7	62.9	77.4	70.1	70.1	66.4
4	42	46.7	46.1	74.6	66.8	59.0	57.2
5	59	47.7	53.3	70.0	62.1	59.2	56.9
6	50	52.3	55.9	76.1	72.0	60.3	60.0
7	23	42.4	40.6	72.0	47.7	52.1	45.2
8	25	50.6	58.6	57.2	48.1	53.4	59.4
9	36	49.6	63.3	71.8	56.5	60.3	61.0
10	12	44.0	54.1	81.9	55.2	48.7	64.5
11	28	54.1	57.4	77.9	57.3	56.8	60.1
12	6	65.0	75.0	95.3	75.5	77.5	81.3

Table 9 presents teacher-estimates of the six instructional effectiveness variables for the five curriculum areas. In general, teachers estimated that approximately one-half of their students were prepared for their work at the beginning of the school year, while at year's end, 60 percent had mastered their assigned work. Linear models analyses of these data also revealed no significant differences between curriculum areas but, as before, significant effects for grade-levels (availability of learning materials, mastery of assigned work, education maturity). In general, however, no readily interpretable statistical trend across grade-levels was observed (see Table 10).

2. Table 11 summarizes the number of instructional hours planned each week along with the observed scheduled, real classroom and individual student instructional times expressed as a percentage of the total amount planned. Thus, both the greatest amount planned and highest percentage of individual instructional time were associated with Reading and Language Arts, and the least with Social Studies and Health-Science. However, at the same time, high-achieving schools were observed to have realized a greater percentage of individual-instruction from less instructional-time planned. (In fact, high-achieving schools were also found to have a slightly greater amount of individual instructional time.) Compared with Tables 1 and 2, these data suggest that teachers may systematically overestimate the percentage of students on-task when making judgments within their classrooms.

TABLE 11

Percent of Total Planned for Instructional Times Observed in Third-Grade Classrooms for the Five Curriculum Areas and in High- and Low-Achieving Schools Sampled

Group	Total Instruction Planned(Hours/Week)[a]	Actually Scheduled	Real Class Instructional	Average Individual Student Instructional
Curriculum Area				
Reading	5.39	88.1	75.6	60.4
Language Arts	6.99	90.5	73.8	50.9
Social Studies	3.61	57.6	43.7	24.3
Health-Science	2.63	95.0	60.0	32.6
Mathematics	4.24	86.3	66.7	45.9
School Achievement Level				
High	21.00	89.2	71.4	49.2
Low	24.00	83.3	65.9	40.8

[a] Total Instruction Planned considered 100 percent.

TABLE 12

Teacher Affective and Neutral Behaviors Observed in Third-Grade Classrooms for the Five Curriculum Areas and in High- and Low-Achieving Schools Sampled

Group	N. Behaviors/Interval[a]		Percent of Total		Percent of Affective Behaviors			
	Neutral	Affective	Neutral	Affective	Positive	Negative	Appropriate	Inappropriate
Curriculum Area								
Reading	0.92	1.59	43.4	56.1	64.6	35.4	93.0	7.0
Language Arts	1.03	1.52	43.8	56.2	60.8	39.2	87.6	12.4
Social Studies	1.10	0.80	52.6	47.4	50.7	49.3	93.9	6.1
Health-Science	0.92	0.66	54.8	44.2	29.4	70.6	90.8	9.2
Mathematics	0.88	1.41	41.2	58.8	58.6	41.4	96.9	3.1
School Achievement Level								
High	0.94	1.61	43.6	56.3	51.5	48.5	91.8	8.2
Low	1.00	1.09	47.0	53.0	54.2	45.8	93.1	6.9

[a] Observed within 30-second intervals

Table 12 shows the frequency and percent of motivational teacher management behaviors for each curriculum area and for the high- and low-achieving schools. In general, teachers in Social Studies and especially in Health-Science were observed to emit greater percents of negative affective behaviors, with those in high-achieving schools tending to display a greater number of total affective behaviors.

However, the relative level of positive-affective teacher behaviors fell below the 4-1 minimum (positive-negative) ratio recommended by some educators. Finally, although teachers' affective responses were usually appropriate, subsequent analyses showed that the great number of inappropriate behaviors occurring were negative rather than positive.

Additional Information:

75-571 Investigation of Classroom Instructional Variables in the Curriculum Areas of Reading, Language Arts, Social Studies, Health-Science, and Mathematics, 1975, Michael R. Vitale, 67 pages.

Abstract

Curriculum Sequencing: The Theory and Use of Methods of Development, Analysis, and Validation of Instructional Programs

Evaluators: George M. Huntley
David L. Stoloff
Michael R. Vitale

Purpose: This report evaluates the importance of various methods of curricular sequencing and validation and presents a rationale for applied research in this area which has direct implications for the improvement of basic skills curricula throughout the District.

Overview: After the case is made for the importance of curriculum sequencing, eight major curriculum development approaches are compared with respect to empirical soundness and feasibility of their sequencing strategies for the District's basic skills curricula. Major measures and validation techniques for curricular sequences are evaluated and integrated into a useful research strategy. Finally, five major recommendations are made for needed local research and implementation of curricular sequencing and validation.

Summary:

The Importance of Curricular Sequencing. Curriculum can be viewed as the specification of appropriate instructional environments for causing desirable changes in students (see, e.g., Joyce & Weil, 1972); as such, curriculum is the heart of a school system. All major curriculum development models address themselves--in different ways--to an optimal sequence for arranging learning activities within a lesson, as well as to an optimal general sequence for lessons. For example, Figure 1 shows a widespread systematic view of the relationships of the key components in curriculum development and evaluation.

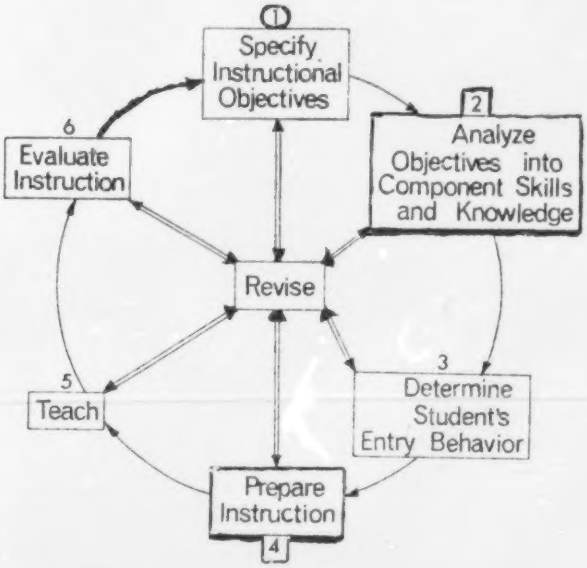
①
Specify Instructional Objectives
2
Analyze Objectives into Component Skills and Knowledge
3
Determine Student's Entry Behavior
4
Prepare Instruction
5
Teach
6
Evaluate Instruction
Revise

Figure 1. The place of sequencing in systematic curriculum development (after Faust and Van Dam, 1973)

Of particular importance in this integrated, cyclical approach are task analysis (No. 2 in Figure 1) and lesson preparation (No. 4 in Figure 1), both of which involve curricular sequencing.

There is virtually unanimous agreement that the crucial basic skills of reading, mathematics, and basic social studies must be taught effectively and efficiently. An effectively articulated sequence of necessary learning objectives is important in order to facilitate the student's knowledge of a complex objective. Common experience suggests that some basic skills are more important and complex than others, and that the order in which the skills is learned is important. For instance, the sounding out of a printed word requires prior knowledge about how to sound out individual letters, and how to scan from left to right across a line of print. Although the former skill is more important than the latter two, it is also more complex than they, while also encompassing them as prerequisite parts. One can imagine the student frustration and lack of learning that would result from attempting to teach the more complex skill before its prerequisites, or without even attempting to teach those prerequisites at any time. The same necessity for sequencing would appear to be true in all areas of related basic skills.

Needed sequencing could be done by specifying an orderly progression starting with simple beginning knowledge and skills, and going through a set of increasingly complex intermediate learnings until the complex unit or course objective is reached. An efficient basic skills curriculum will require that verified "stepping stones" of increasingly complex intermediate skills be taught; furthermore, other skills that have been traditionally taught as supposed intermediate learnings would be eliminated unless they are justified logically and empirically.

Likewise, the preparation of each lesson in a curriculum requires decisions as to which classroom activities might need to occur before others. Taking the example of sounding out printed words, relevant practice in that skill would likely be most beneficial if each practice session were followed by giving the student some critique of his or her work ("You did much better than last time!"), and specific guidance on how to improve on that work ("Try to do it this way...."). In addition, the very first practice session would need a clear introduction of the student to the intended outcome of that particular lesson ("Today, you'll learn to read simple words."), and provisions for maintaining student motivation, ("Then, you'll be able to read your own books!"), highlighting the important things for the student to observe (the given letters and their sequence), and engendering student recall of relevant prerequisite knowledge and skills ("left", "right", and how to sound out each letter).

Finally, a large body of research evidence documents the importance of good curriculum sequencing, both within and across lessons (See, e.g., Briggs, 1968; Gagné, 1970 and 1973; Hilgard & Bower, 1975; Lefrancois, 1975). However, much of the research is of the fragmentary, small-scale laboratory type, and competing methods of curricular sequencing are rarely compared directly. Substantial applied research efforts are still necessary to integrate isolated findings of small basic-research studies, and to refine sequencing procedures for localized District needs.

Curriculum sequencing would thus seem to be a significant aspect of education--particularly in the basic skills, where the foundation is laid for lifelong learning. The remainder of this paper explores alternative ways of specifying and evaluating such sequences, and suggests needed research and implementation.

Major Methods of Sequencing Curricula

Eight major frameworks for developing or analyzing curriculum sequences will be reviewed in turn: (a) content-logic, (b) open education, (c) developmentalism, (d) inquiry, (e) programmed instruction, (f) mathemagenics, (g) operations research, and (h) hierarchical mastery.

Content-logic. As exemplified by the traditional subject-oriented textbook method, the content-logic approach to curriculum sequencing centers around a presentation of lessons according to subject matter experts' conceptions of the relationships and relative importance of ideas and information in a field of study. Students are typically given an organized set of facts (by text or lecture), and periodically tested. The length and instructional sequence of a lesson appear to be rather arbitrary, and based on estimates of how much information can be conveyed in a given amount of time.

The approach is still widespread, probably because of its strong tradition and relatively low cost. Although it is a cheap and feasible sequencing strategy, the content-logic approach does not have much empirical backing, especially with upper-elementary students who are learning basic skills. Furthermore, different subject-matter experts might sequence the same material in quite different ways; one of these ways might be much more effective with students than another.

Open Education. This approach (see, e.g., Kohl, 1969) focuses on life adjustment skills, and centers around exploring topics that are suggested by the students themselves. The sequence of activities is chosen in cooperation with the students.

The strict application of such a sequencing approach would probably be unfeasible in the typical classroom, and be both ineffective and inefficient in conveying related sets of basic skills to upper elementary students who are probably unsophisticated in planning and monitoring their own learning.

Developmentalism. Developmental approaches (e.g., Piaget, 1971) organize the curriculum according to the present developmental level of the learner, and sequence it to conform to the pace of that development; pacing and sequencing tend to follow long-range developmental trends in the direction dictated by a particular theorist's concepts of qualitative changes in student maturation and development. Piaget posits, for example, four major stages of increasingly complex mental functioning up through puberty. Under such a sequencing strategy, any particular lesson should be presented at the level of complexity at which the student presently functions.

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Although some empirical backing exists for such an approach to sequencing, it appears too gross a procedure for specifying good basic skills curricula if it is used in isolation from other important insights of sequencing.

Inquiry. Following especially Bruner's (1961) dicta, inquiry methods sequence the curriculum in a reiterative "spiral" fashion where students periodically have lessons dealing with the same general topics, but in more depth or complexity with each successive review. Each lesson is arranged to ask the student to solve a problem, and to encourage both group and individual exploration of solution strategies, as well as to have the student verbalize the rule or principle that he or she may eventually discover in solving the problem.

While this approach has some empirical backing, it would seem to be only marginally feasible in the typical classroom, extremely inefficient for most students, and probably quite frustrating to some.

Programmed Instruction. The programmed instruction method (e.g., Skinner, 1968) presents a complex task in small parts, each of which is thoroughly practiced until the student is asked to practice the entire complex task. Lessons are generally sequenced from simple to complex within a particular content area of study. Presentation may be strictly linear, or perhaps branch a student to different subprograms or review, based on his or her performance.

This method is feasible for the typical classroom, it has good empirical backing, and it is fairly explicit--particularly at the level of the individual lesson and a small group of related lessons.

Mathemagenics. Rothkopf (1967) and Ausubel (1968) are major contributors to an approach which is designed to increase the retention of primarily factual material. A lesson is typically preceded by a general summary of the material to be learned, and the factual material (usually a text) is presented with questions interspersed. The general organization of lessons is according to subject matter organization, with periodic comparisons and contrasts of various facts and information to show how the facts relate and yet how each is distinct.

This approach is feasible, has good empirical backing, and deals with sequences both within and between lessons.

Operations Research. This approach (see e.g., Page, Jarjoura & Konopka, 1976), uses techniques such as PERT (Program Evaluation and Review Technique) to aid the curriculum designer in making sequences explicit, both within and between lessons. A directed graph scheme is used to show lesson sequence, estimates of time and resource allocation. As in the programmed instruction approach, the presentation within or between lessons may be either linear or branching, based on any relevant student characteristics or performance.

As with the programmed instruction approach, this approach is feasible, and is gaining empirical backing; it appears in many ways to be only a variant of that approach.

Hierarchical Mastery. In this approach (e.g., Gagné & Briggs, 1974), students are progressively led through a task-analyzed set of activities, each of which causes positive transfer from the student's beginning knowledge of simple skills, up to the point where the student is taught the predetermined complex intellectual skill. Each skill which is a prerequisite for another should be fully mastered before the student advances to its superordinate skill. Within a lesson for a skill, students go through a sequence of activities designed to orient them to the learning task, present a relevant learning activity, give students corrective feedback on their performance, and give ample and varied practice on the skill.

This approach is feasible, has a good amount of empirical backing, addresses itself well to sequencing questions both within and across lessons and seems particularly appropriate for teaching basic skills well.

Although many of the sequencing approaches have useful insights to contribute, the hierarchical mastery approach seems the most completely explicated and comprehensive one, and also seems well-suited to teaching basic skills at the upper elementary level. In addition, it is being used widely in applied settings (e.g., in Baltimore--see Carroll & Cook, 1976--and as part of the plan of DISD's Partners in Reading curriculum). The use of a hierarchical mastery model for sequencing does not, however, preclude its modification to embrace some of the valid insights of other sequencing methods.

Measures and Methods for Validating Curricular Sequences.

Major reviewers of methods and measures relevant to validating various instructional sequences include Eisenberg & Walbesser (1971), Glaser & Cooley (1973), Huntley (1974), Resnick & Wang (1969) and White (1974). Thorough study of curricular sequencing will require measurement instruments for assessing student characteristics and learning, as well as the type and sequence of instructional activities. Relevant information on students will probably include background measures such as socioeconomic status, key aspects of prior educational experiences, self-concept and attitude towards school. Relevant standardized achievement instruments will probably be useful to measure long-term, global learning. But the study of specific skill hierarchies deformity requires specific criterion-referenced tests on the specific skills taught; these may frequently need to be tailor-made for a particular study. Instruments will also be needed to characterize of curriculum plans or observed classroom processes (both within and between lessons), and to categorize them according to type and sequence of activity with respect to sequencing theory.

Many classical correlational measures are available for determining degree of learning and cumulative facilitation of learning from one skill to another. Huntley (1974) points out their general lack of theoretical fidelity with respect to sequencing theory, and reviews some newer, more relevant measures of transfer between skills, empirical adequacy of a partic-

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ular hierarchical sequence, and structural similarity of alternative hierarchies of the same skills. Further developmental work will be necessary to perfect measures of the congruence of planned or observed curricular sequences with theoretically optimal sequences.

The major strategies for determining the worth of an instructional sequence include (a) observation of the effects of using a particular sequence in an instructional situation, (b) scaling of hierarchical skills based on testing a representative group of students on all the skills, and (c) expert judgmental determinations. The first of these, in which student posttest scores on the skills are compared with pretest scores before each segment of hierarchical teaching, is the most conclusive way of validating a hierarchy, but is very costly and time-consuming. This method might be best utilized in the final stages of hierarchy validation, after initial sequencing hypotheses have been narrowed down to a few high-probability alternatives. This testing-teaching-testing strategy might also be used selectively in early stages of research on a particular hierarchy in order to test crucial fragments or highly contentious points of transfer in a large hierarchy.

Another promising strategy is that of giving skill tests to a group of students, and scaling the results in a hierarchical fashion (e.g., Airasian & Bart, 1972; Heiner, 1973; Huntley, 1976; Smith, 1974; and Wulfeck, 1976).

This test-scaling approach would be more economical and less time-consuming than true experimental approach, but also tends to be more ambiguous and less convincing. This is because the fundamental relationship between this and a true experimental test of a hierarchy has yet to be clearly proven. Nevertheless, such scaling should be explored further and might be profitably utilized in the initial stages of validating a skill sequence.

Finally, it is possible to ask expert curriculum designers or teachers for their estimates of the worth of a particular hierarchical sequence. Although this is probably the least reliable of these three strategies for hierarchy validation, it may provide very useful information--especially at the very beginning of validation work on a hierarchy.

It would probably be most reasonable to use these three validation strategies in an articulated fashion which emphasizes the strengths of each. Specifically, expert judgments would be used primarily in the early stages of work in hierarchy creation and validation. The alternatives thus specified would be further tested by scaling studies and selected experimental tests of key fragments of the hierarchy. Finally, the full experimental approach would be used for detailed and definitive formative and summative evaluation of the hierarchy with a large group of representative students. This same sequential validation strategy might profitably be used in the detailed study of instructional events within a lesson.

Implications for Applied Research and Instructional Improvement.

It thus appears that advances in instructional sequencing have great import for improving instruction throughout the District, and particularly in the crucial area of basic skills. The basis exists for applying good sequencing principles so as to improve curricula, but some basic and applied studies are still needed. The foregoing discussion of curriculum sequencing and validation suggests five major research priorities:

(a) Systematic integration of the most promising strategies for sequencing curricula, both within and across numbers of related lessons in basic skills. The prime criteria should be: (i) student achievement in the basic skills taught, (ii) relevant achievement on standardized tests (for example, increased scores on a reading sub-test after completing a well-sequenced unit of instruction in reading), and (iii) efficient use of classroom and planning time;

(b) Development of measurement instruments and data analysis techniques to relate the processes of instructional sequencing with the products of student achievement, and effectiveness and efficiency of the use of classroom planning and teaching time;

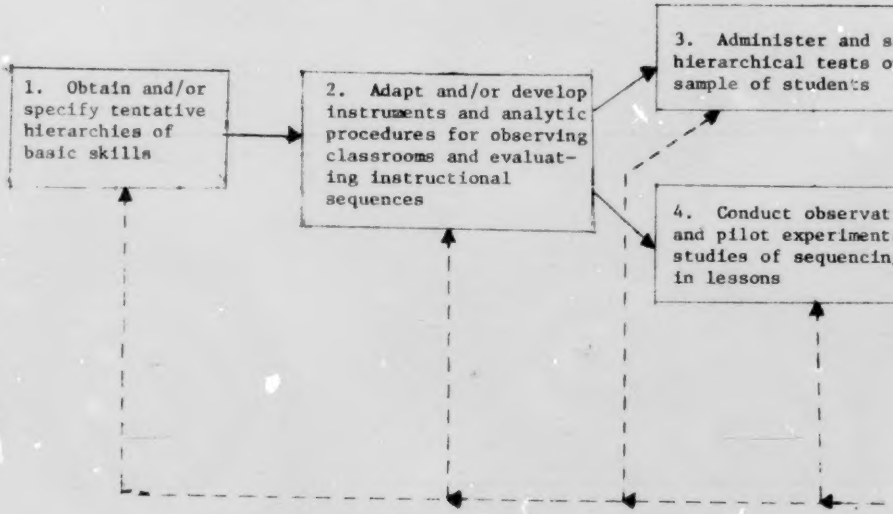
(c) Observations of the differential effects of teachers using clearly contrasting instructional sequences, both within and across lessons;

(d) Development and validation of teacher training, curriculum development and evaluation strategies dealing with the reliable large-scale use of the most successful sequencing strategies, and

(e) Evaluation of system-wide modifications of instructional sequences based on the above studies.

Figure 2 shows a systematic strategy for implementing these recommendations. Hopefully, such a strategy will be used to articulate District work in this important area of instructional improvement.

Figure 2: A Strategy For Applied Research in Curriculum Sequencing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3. Administer and s hierarchical tests o sample of students
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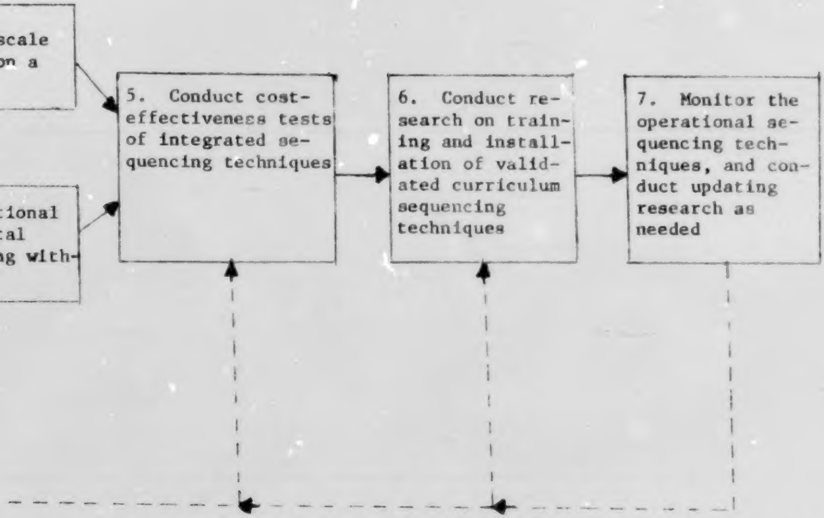
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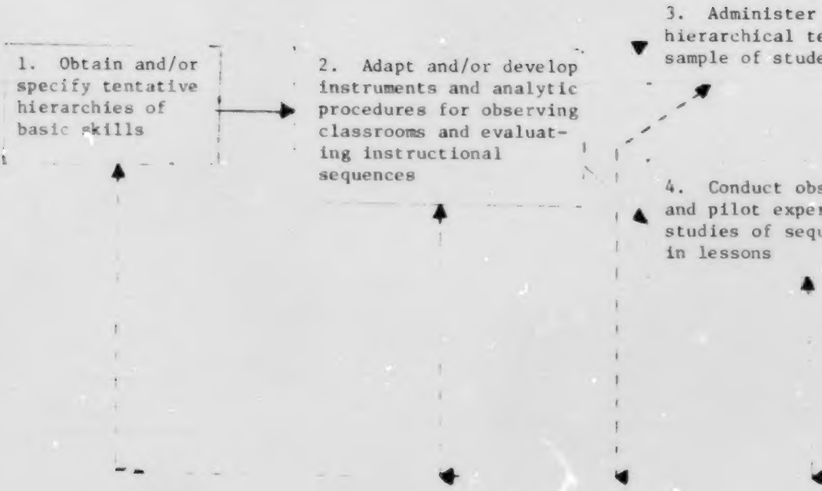
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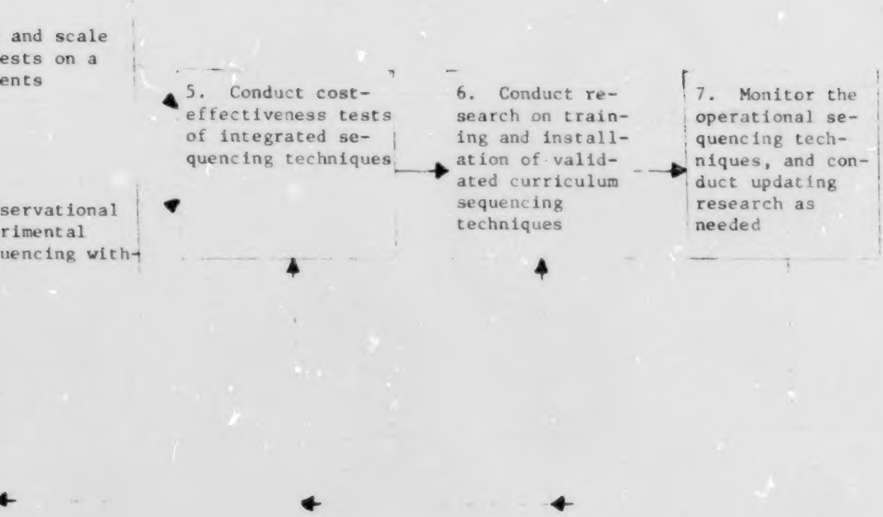
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Additional Information:

76-800 Effects of Educational Technology: A Review of the Literature, 1976, L. Nicora Simmons.

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AR77-121-5-9

Abstract

An Analysis of Student Standardized Test Behavior: A Training Program to Motivate Students for Maximum Performance

Evaluators: Meg Korpi
Michael R. Vitale

Purpose: This report delineates major threats to test validity that affect the interpretation of student standardized achievement test scores that ideally should be based only upon test-content difficulty and student ability. Its major purpose is to analyze these factors by exploring the research literature for potential applications to minimize their influence within the District. In addition, an important goal of this report is to outline requirements for a pilot study to teach fourth- through sixth-grade students test-taking strategies while concomitantly increasing their motivation for test taking. Therefore, it marks one step of a continuing effort by the Department of Research, Evaluation, and Information Systems to maximize the validity of standardized tests in the assessment of student ability and achievement.

Overview: This report consists of six sections. The first section provides a brief introduction to selected problems related to achievement-test-score validity in the District. The second section deals with the question of student test-wiseness: its definition, its effect upon score validity, factors relating to its development, and its teachability. The third section deals with the improvement of student attitude toward and motivation for test taking. The fourth section overviews categories of internal and external distractions that depress test performance, along with procedures for minimizing them. The fifth section reviews implications of the reported research findings for the District's standardized testing program. And, finally, the sixth section suggests strategies for future pilot investigations that would work toward the development of a student training program for maximizing the validity of standardized achievement test scores.

Summary:

Introduction. Valid interpretation of standardized test scores as "true" estimates of student achievement levels assumes that students are able to exhibit and are motivated to demonstrate their "best" performance. However, research suggests that these and other extraneous factors (cf. Wick & Ward, 1977; Mendro & Kreuck, 1977; Applebaum, 1976) may introduce large sources of error into test scores, and that these sources of error may be magnified with lower ability students (Wright, 1977). For example, Mendro and Kreuck (1977) found that as many as 52 percent of District fourth- through sixth-grade students scored at or below chance, illustrating the interdependent influences of (low) ability, individual work rates, motivation, testing interruptions, and failure

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to understand test directions (for completing tests or answer sheets) upon standardized test scores. In order to optimize the validity of students' tests and, consequently, the interpretations based upon them, the status of three general factors potentially threatening test-score validity must be overcome. These are (a) student test-wiseness, (b) student motivation (including attitude), and (c) distraction inherent in the test administration. The remainder of this report analyzes these factors and discusses procedures for minimizing their potential effects.

Test-Wiseness

General Definition. For the purposes of this report the most useful definition of test-wiseness considers it to be the skills needed to demonstrate the cognitive abilities that a test has been constructed to measure (Sabers, 1975). This definition emphasizes the student's test-taking skills that utilize the characteristics of the test and/or test-taking situation in order to receive a score commensurate with the abilities being measured (Oakland, 1972). Such a definition is useful because it separates test-wiseness skills that are necessary for obtaining valid test scores from those which are intended to produce artifically high scores.

Millman et al. (1965) dichotomize test-wiseness into generalizable elements which are independent of the test constructor or purpose and more specific elements which are dependent upon the test constructor. These independent principles consist of generalizable strategies for time-using, error-avoidance, guessing, and deductive reasoning which, although sometimes dependent upon the test format, are applicable to a wide range of tests. On the other hand, dependent principles consist of strategies for using a test-writer's intent or idiosyncracies and specific secondary cues. In turn, secondary cues consist of hints within a specific test that allow an examinee to answer questions at a greater-than-chance rate without knowledge of the subject matter (e.g., answers based upon grammatical inconsistencies between stem and item-alternatives, longest correct alternative, or specific determiners in answer-option). Since secondary cues are dependent upon test-writing faults, their potential usefulness is limited by the fact that the majority of "item-faults" are removed in standardized test-development.

Test-Wiseness and Intelligence. A major research problem surrounding test-wiseness has been to determine the extent to which it is related differentially to intelligence and experience. This question is important because its answer implies whether student differences in test-wiseness are sources of truth or error in test scores and whether test-wiseness can and should be taught directly. More specifically, one argument states that test-wiseness correlates with intellectual ability and therefore, does not reduce test validity. However, a second argument states that test-wiseness results primarily from experience with the testing situation and, thus, is an unwanted source of variance whose elimination from test scores will allow more accurate estimation of student abilities and ability differences. In general, a number of studies using tests consisting of fictitious materials and containing secondary cues have explored this relationship. They found such skills to be "cue-specific" rather than relatable to general intelligence. However, it must be emphasized that such studies defined test-wiseness in terms of easily controlled skills that are dependent upon specific item defects rather than general skills (i.e., time-using, guessing strategies) that are more difficult to control experimentally.

Effects of Test Familiarity and Practice. Because of the difficulty in measuring and controlling generalizable sets of strategies, it has been difficult to determine directly whether their natural acquisition is related to other cognitive abilities such as intelligence or achievement, or whether high scores on intelligence and achievement tests are artifacts of the use of test-wiseness skills. One alternative approach to this question has been to study how familiarity with a particular test format affects test scores of otherwise equal populations. In general, evidence along this line suggests both that lack of familiarity with a test format can depress examinees' scores (Millman and Setijadi, 1966) and that increased familiarity (Moore, 1971) and practice (Kreit, 1967) can raise test scores.

In addition to exposure to a specific test format, Eichelberger (1973) has demonstrated that repeated practice, using alternate test forms over a period of a month, produced increased scores from a first to second testing, although scores decreased from the second to the third. Rather than practice's decreasing test scores, it seems likely that reduced student motivation produced this latter decrement, especially in light of research findings by Droege (1966) that indicated practice effects over intervals up to three years could produce score increases.

Teachability of Test-Wiseness. In general, the research evidence to date suggests that test-wiseness is determined primarily by practice within the test-taking situation rather than by any intellectual ability. If this is the case, then it would make good sense to supplement this lack of experience by training children in explicit test-taking strategies and skills. It seems natural, therefore, that educators have discussed the feasibility of attempting to teach disadvantaged elementary school students how to take tests (Downey, 1977). And, perhaps surprisingly, experimental studies attempting to teach test-taking skills have obtained positive results. For example, Wahlstrom and Boersma (1968) and Slatker et al. (1970) have taught students to recognize secondary cues on tests. However, as stated previously, these findings are of questionable value when dealing with well-developed standardized (or criterion-referenced) tests. In addition, since these cues are viewed as knowledge-independent, they are unlikely to positively impact test validity.

However, unlike secondary cue-training, teaching students generalizable aspects of test-wiseness could positively impact both their scores and overall test validity. As illustrated in Table 1, these generalizable skills can be viewed as falling along a continuum ranging from mechanical skills (such as finding the correct starting and stopping points or filling in answer sheets correctly) to general skills (such as time-using and guessing strategies)

Table 1

Major Categories of Test-Wiseness Principles

Category	Selected Examples
Item-Specific Skills	Recognizes secondary cues; recognizes idiosyncracies in test construction; uses test constructor's intent to answer items; determines level of sophistication expected
Generalizable Skills	
Basic	Can find correct questions to work in test booklet; can fill in answer sheet correctly; can erase and change incorrect answers; can follow columns and rows format
General	Uses time efficiently; knows when and when not to guess; understands and pays attention to instructions; uses strategy for returning to skipped questions
Test Format-Specific	Uses deductive reasoning on multiple-choice questions; uses strategy for answering reading comprehension questions; uses strategy for answering questions about maps, graphs, or pictures; uses strategy for determining "best" answer
Mental Process	Applies analytic thinking; applies inference methods; applies analogy methods; applies deductive methods

to test format-related skills (such as strategies for answering reading comprehension questions or deductive reasoning on multiple choice tests) to mental process-specific skills (such as analysis, inference, or analogy). Of course, the next logical step along the continuum is not a test-wiseness skill, per se, but the teaching of additional subject-matter content, such as vocabulary, reading, and mathematics skills, required by test domains.

Recently, research studies (Pike, 1973; Oakland, 1972) have shown that standardized test scores of preschool- through second-grade children can be improved significantly when the children are given instruction in such basic test-taking skills as filling in ovals, marking only one space, working in columns and rows, choosing answers carefully, and asking questions when they do not understand test instructions. In addition, Moore et al. (1966) reported a successful self-instructional unit to teach optimal guessing and time-using strategies to eighth graders. In a later expansion upon that study, Moore (1968) identified four major instructional-design factors influencing the effectiveness of such programs: (a) similarity between test and learning task, (b) mastery requirements for non-similar material, (c) mastery requirements for similar material, and (d) the identification of material essential for task-objective mastery.

In related work, McPhail (1976) found positive effects of training academically talented minority students in test-format specific skills for multiple-choice and reading comprehension tests, although Oppenheim (1966) found that short-term instruction for analytic approaches to verbal and mathematical tasks was of little practical value. Finally, Ford (1973) reviewed several years' work on "coaching" or teaching students highly test-specific (or item-specific) areas and concluded that they had obtained generally negative results, perhaps because they had concentrated on specific test questions. Generalizable test-wiseness skills and representative content instruction perhaps are more logical alternative beginning points.

Motivation

Differing levels of student motivation are an important factor affecting the validity of standardized test scores. And, more specifically, the assumption that students are sufficiently motivated to perform is often times not true, particularly for disadvantaged students (see Spilerman, 1970). Two different approaches relevant to increasing student motivation toward test-taking will be reviewed here: (a) student attitude (for self-determination) and (b) reinforcement (for greater persistency and effort).

Test-Taking Attitude. Omvig (1971) cited several studies showing that test scores can be improved simply by making students feel the results are of personal importance to them. However, at the same time, Wrightsman (1962) has indicated hidden dangers of motivating students by emphasizing task importance, by showing that students low in achievement motivation performed worse on tests they perceived to be of high importance. Atkinson's (1964) theory of achievement motivation has outlined conditions under which such approaches are likely to be of value. In related research, Reed (1970) and others have found that high achievement motivation is strongly related to a belief in self-responsibility (or attribution) for success and failure. Heckhausen (1975) identified a relationship between underachievement in fifth graders and ascription of failure to low ability rather than lack of effort, factors he was able to remediate through teacher-provided examination and homework feedback emphasizing that increased effort would improve performance. Dweck (1975) trained 8-13-year-olds having high failure expectations to respond positively in the face of failure by exposing them to the idea that failure is due to lack of effort. And, finally, Andrews (1974) found that persistence could be increased by similar attribution training. In general, therefore, research supports the view that students can be trained to increase their persistence on academic tasks (and presumably tests) by emphasizing their perceptions of self-responsibility for success.

Reinforcement. Many studies have investigated the effects of reinforcement (i.e., rewards) upon motivation. With respect to test-behaviors, Allyon & Kelly (1972), Edlund (1972), and Tuinman et al. (1972) all have reported significant increases in standardized test scores due to incentives. This more recent work contradicts earlier negative findings (Benton, 1936; Cronbach, 1960) due to greater technical rigor in the reinforcement procedures. For example, Benton (1936) offered only one prize for a group of 25 children, whereas

Tuinman et al. (1972) presented a reward to each child whose score increased, with more valuable prizes being awarded for greater increases. Allyon and Kelly (1972) offered a token as reinforcement for every correct test response. In supporting work, Vitale and Hebbler (1977) have shown that children's learning and testing preferences and efforts are highly sensitive to differential reward frequencies.

A second factor that can affect the success of specific reinforcement procedures is the value system of the student. Social approval, praise, and grades are institutionalized rewards within the schools that may not be effective for many students (Staats & Staats, 1964). For example, Spilerman (1970) cited experimental evidence that disadvantaged children are more responsive to tangible rewards than to either social reinforcement or performance feedback, while Dunn-Rankin (1969) has shown children's school-reward preferences change systematically with increasing age. Although neither general "rewards" such as monetary incentives nor high test-item reward frequencies are practical solutions within the typical classroom, it is likely that classroom-manageable motivational systems for test behaviors could be developed using "free-time" during which students are allowed to pursue their own interests within the educational setting (Vitale, 1976).

Distractions

Although they are not central to the specific purpose of this report, which emphasizes test-training and motivation, brief mention should be made of distractions which can also affect, and thereby invalidate, test scores. These distractions, which center about test administration procedures, are of two basic types: (a) internal to the student, and (b) external to the student. Internal distractions (including hunger, sickness, lack of sleep, anxiety, or other personal-emotional problems) are difficult to control directly because they are "within" the student. Their effect can be reduced through such preparatory procedures as encouraging students to obtain a full night's sleep and a good breakfast and by familiarizing students with the testing situation in order to decrease anxiety caused by their uncertainty.

External distractions within the testing situation can be controlled to a much greater degree by the examiner. These factors might include noise, excessive activity, inadequate lighting, uncomfortable room temperature, or crowding. Although such disturbances are not an important factor when moderate, a recent study by Applebaum (1976) of the District's testing practices recorded significant disruptions from each of the above sources, with the exception of light.

Implications for the District

The research results cited in the three previous sections suggest definite implications regarding the teaching and motivation of test-wiseness behaviors. Certainly, each of the three major factors discussed--test-wiseness, motivation, and distractions--can be controlled to some degree. Based upon the research findings, the specific test-wiseness principles likely to have the strongest effect upon the validity of achievement test scores, i.e., generalizable skills independent of specific item-faults, have been shown to be teachable experimentally. The development of a practical test-wiseness instructional program for general classroom use, therefore, appears to be both a feasible and valuable undertaking, and one for which the empirical foundations have been well set. "Coaching" for specific content areas, however, has not been found to offer utility in impacting test validity (or even test scores) without increasing students' "true" achievement levels, and, therefore, deserves little attention.

At the same time, the results of motivation studies reviewed indicate that test score validity might be positively impacted both by attribution training (i.e., teaching underachievers that failure can be due to lack of effort) and (b) the implementation of a program utilizing reward-training for test behavior and academic performance. Considered together, the most powerful first step for a teaching strategy would be to develop an instructional sequence using reward training to motivate test-wiseness skills-learning directed toward the specific standardized achievement test used within the District. Then, as a second step, to be added during the completion of the first, an attribution training component should be infused.

Although internal and external distractions can be of major importance, virtually all of them are related to test administration practices and are already the focus of a continuing effort within the standardized testing program to improve test administration.

A Strategy for Future Investigations

The next step in maximizing the validity of student achievement test scores within the District is the development and piloting of programs, designed for use primarily in the elementary classroom setting, that would improve test-taking skills while positively motivating students to perform at their best level. In general, a preliminary program would attempt to teach basic and general test-wiseness skills within a systematically-implemented positive reward structure. The basic and general skills serving as a starting point and directly relevant to the Iowa Tests of Basic Skills are shown in the skills hierarchy in Figure 1. In inspecting Figure 1, it should be noted that lower-order skills are considered prerequisites for higher-order ones, and that the skills can be grouped into either test-responding mechanics or guessing strategies assuming partial knowledge. Finally, although not included, other general skills which should be targeted in an initial effort are time-using and guessing strategies.

In accordance with the guidelines of Oakland (1972), lesson-design specifications should gradually increase the number of options per item, and the number of options per page as part of the training sequence, until both the test format and test length approach that of the ITBS. With respect to the teaching context for the program, it is likely that the rewarding of students for appropriate training performance would be best implemented within a student-team classroom-game setting. Finally, it would be expected that the units composing the complete program and the motivational-support component would be modularized and keyed to specific test-wiseness objectives and types of school-rewards to allow teachers to have the greatest degree of flexibility in usage.

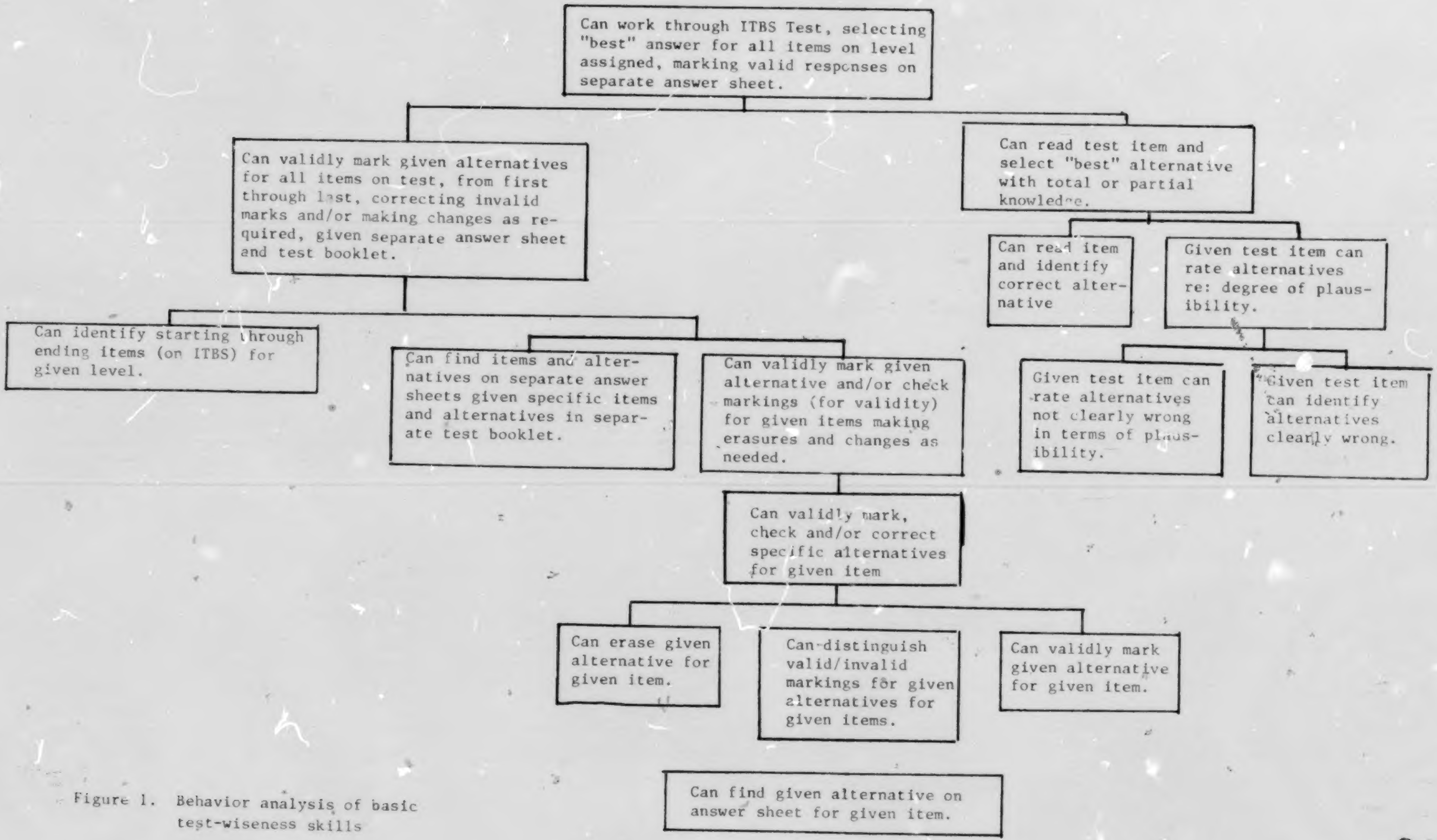
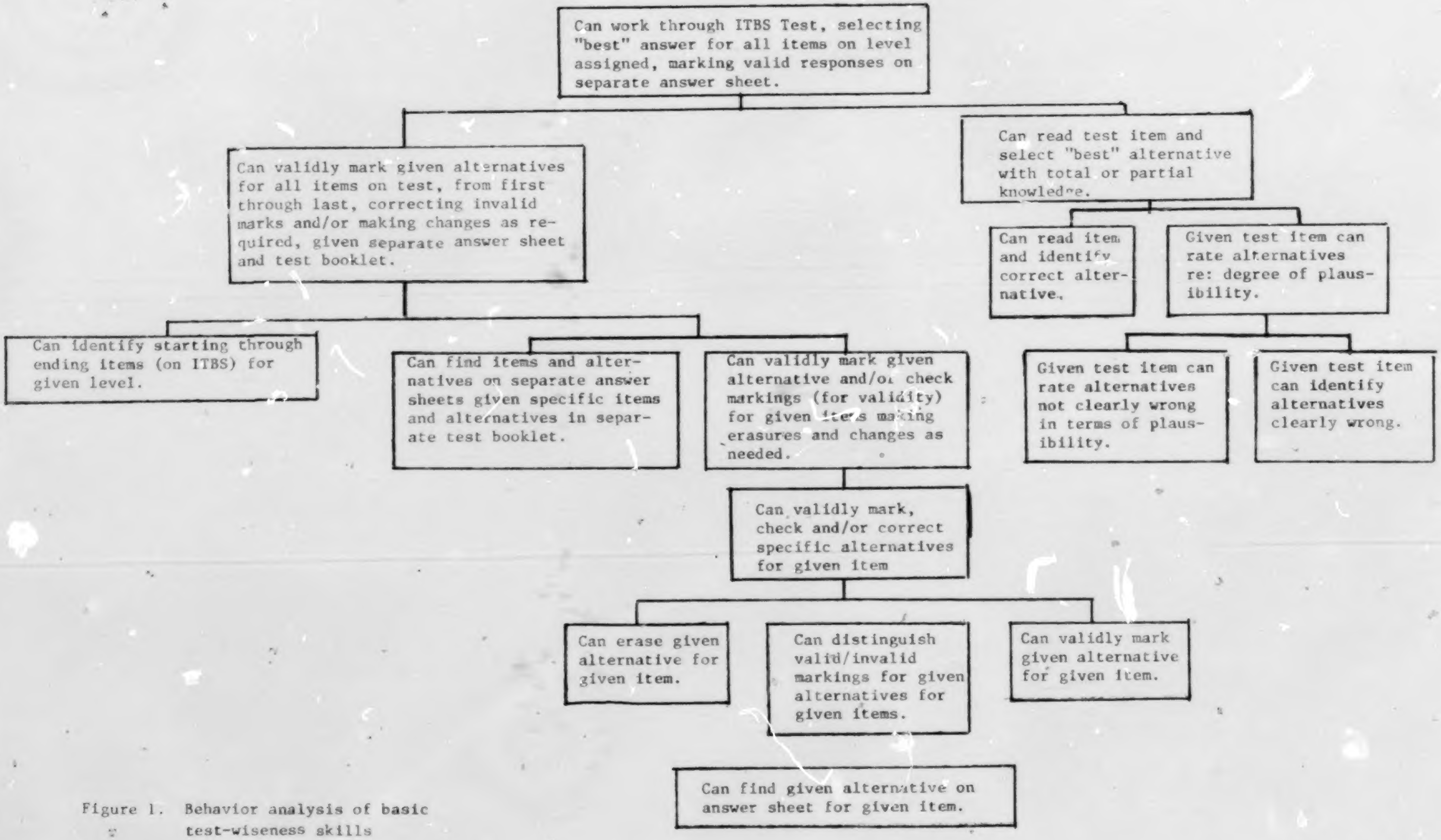

Can work through ITBS Test, selecting "best" answer for all items on level assigned, marking valid responses on separate answer sheet.
Can validly mark given alternatives for all items on test, from first through last, correcting invalid marks and/or making changes as required, given separate answer sheet and test booklet.
Can read test item and select "best" alternative with total or partial knowledge.
Can read item and identify correct alternative
Given test item can rate alternatives re: degree of plausibility.
Can identify starting through ending items (on ITBS) for given level.
Can find items and alternatives on separate answer sheets given specific items and alternatives in separate test booklet.
Can validly mark given alternative and/or check markings (for validity) for given items making erasures and changes as needed.
Given test item can rate alternatives not clearly wrong in terms of plausibility.
Given test item can identify alternatives clearly wrong.
Can validly mark, check and/or correct specific alternatives for given item
Can erase given alternative for given item.
Can distinguish valid/invalid markings for given alternatives for given items.
Can validly mark given alternative for given item.
Can find given alternative on answer sheet for given item.

Figure 1. Behavior analysis of basic test-wiseness skills


Can work through ITBS Test, selecting "best" answer for all items on level assigned, marking valid responses on separate answer sheet.
Can validly mark given alternatives for all items on test, from first through last, correcting invalid marks and/or making changes as required, given separate answer sheet and test booklet.
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Can validly mark, check and/or correct specific alternatives for given item
Can erase given alternative for given item.
Can distinguish valid/invalid markings for given alternatives for given items.
Can validly mark given alternative for given item.
Can find given alternative on answer sheet for given item.

Figure 1. Behavior analysis of basic test-wiseness skills

Additional Information:

AR77-121-9-9 An Analysis of Student Standordized Test Behavior: A Training Program to Motiviate Students for Maximum Performance, 1977, Margaret Korpi, Michael R. Vitale.

AR77-080-3-9

Abstract

Attitude toward School: An Overview of Theory and Research Applications in the School Setting

Evaluator: Larry R. Ridener

Purpose: This report selectively reviews relevant literature in the general area of attitudes and the related theoretical framework of attitudes. The specific area of attitude toward school and a number of variables thought to be associated with attitudes are discussed based upon recent research within this area. It is the aim of this report to relate to the potential usefulness in the instructional analysis of educational programs within the Dallas Independent School District and serve as an integrated component of that analysis.

Overview: This paper consists of three major sections. The first section deals with the definitions of attitude from a general point of view and a specific definition of attitude toward school. The second part deals with the theoretical framework of attitudes including reinforcement, social-judgment, consistency, and functional theories. The third section discusses variables associated with school attitude. These are: achievement, self-concept, parents and the home environment, teacher and classroom atmosphere, instructional practices and special programs, sex, intelligence, socioeconomic status, and student interests. A final section deals with the study of attitudes by the District's Applied Research Program.

Summary:

Definition of Attitude

General. After reviewing numerous general definitions of attitudes and related constructs, several were retained that were considered relevant to the topic of this paper. Perhaps the oldest and most enduring definition was that given by Allport (1935). He defined attitude as being a mental and neural state of readiness to respond, organized through experience, and exerting a directive and/or dynamic influence on behavior. Although the aspects of this definition have been debated over many years, the definition itself remains, at least, as a strong basis for attitudinal research. (See McGuire, 1969.)

Another definition was that of Rokeach (1968). He defined an attitude as "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner."

More recently Wrightsman (1970) defined an attitude as a positive or negative affective reaction toward a denotable or concrete object or proposition and as possessing three central characteristics: (1) always having an object, (2) usually evaluative, and (3) relatively enduring. The Wrightsman definition pointed to the specific area of concern to this report--attitude toward school.

The object of that attitude is the school or parts of the school. The evaluation of it is positive or negative affect (approach/avoidance); and it is relatively enduring, that is, it remains the same throughout a child's school career.

A final definition postulated by Bem (1967, 1970) brought out the interrelation of attitudes and behavior and the relation of attitudes to self-concept. First, Bem proposed the idea that in many instances one's behavior determines one's attitudes, rather than the reverse. Bem recognized that an individual's attitudes and actions influence each other. Second, according to Bem the most important cues we get about the internal states of other people come from observing their behavior. We judge the feelings of others on the basis of their actions. It is the same with ourselves, according to Bem; we infer our own attitudes about an object from our beliefs. These two ideas are related to (1) programs aimed at attitude and achievement, and (2) the notion of self-concept.

Specific. Since the concern of this paper is attitude toward school, attitude will be defined as a system of feelings related to learning (reading, math, science, etc.) which causes the learner to approach or avoid a learning situation (Alexander and Tiller, 1976). Attitude should also be treated as having a relational property, i.e., a student's attitude toward school expressed as a preference tendency would depend upon his alternatives (Vitale, 1977).

Table 1 presents a behavioral definition of school attitude. In addition to the aspects presented in the table, Robinson (1975) found that attendance may be effective in determining school attitude.

Table 1

Behavioral Definition of School Attitude

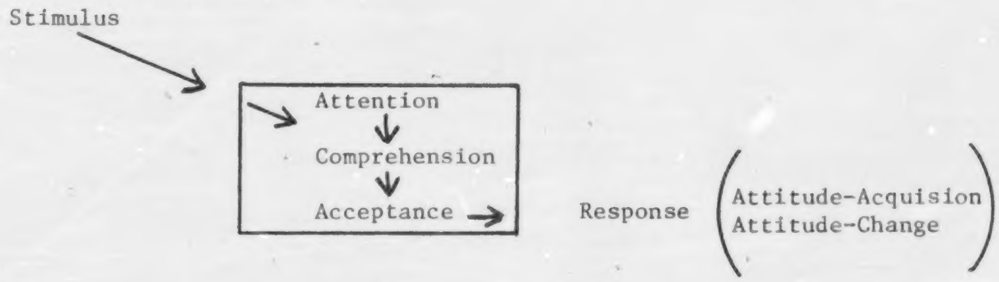
- Direct Behavioral/Observational
  - Student preference (or choice) given free access (approach/avoidance)
  - Teacher observation or checklist
  - Student interview
- Student Self-Report as Estimate of Behavioral Attitude
  - Student-reported rank-orders of set of performances
  - Student-reported (approach/avoidance) tendency for given performance
  - Student-reported feeling (happy/sad) when approach or avoiding given performance
  - Student-reported questionnaires
  - Student-reported incomplete sentences
  - Student-reported pairing of activities
  - Student-reported summated rating
  - Student-reported semantic differential

Theoretical Framework

Reinforcement Theory. Reinforcement theory conceives of human behavior as leading to consequences which feed back to the behavior, usually maintaining or changing the probability of similar behavior in the future. It is assumed that the mechanism by which a child's future behavior is changed is a form of learning. The basic idea is that the likelihood of a specific response is determined by the consequences which the persons expects to follow that response. If the consequences are positive or rewarding, the behavior is likely to recur. If they are negative or punishing, the behavior is not likely to recur. The process of attitude acquisition (or attitude change) resembles the process of learning. In the learning of new attitudes three variables are important: attention, comprehension, and acceptance. (See Table 2.) These steps can be accomplished through such behavioral techniques as direct reinforcement, extinction, vicarious reinforcement, contracts, and the Premark principle (Hovland, Janis, and Kelley, 1933; Zimardo and Ebbesen, 1969), and can be readily applied in a school setting (Alexander and Filler, 1976).

Table 2

Steps in Attitude-Acquisition (Attitude-Change)
Hovland-Janis-Kelley Model



Social-Judgment Theory. The social-judgment theory consists of central concepts including reference scales, anchors, contrast, assimilation, latitudes of acceptance and rejection, and involvement. These concepts tie in with sociometric research and the influence of peers and reference groups. The theory recognizes that all judgments, including attitude toward school, are made within the context of other judgments. Reactions to most stimuli are influenced by the nature of immediately preceding stimuli.

Although the theory can be applied to a classroom setting, the approach appears weak in several ways (Hovland, Harvey, and Sherif, 1957; Sherif, Sherif, and Nebergall, 1965; and Insko, 1967) For example, the ways that different constructs might influence each other cannot always be spelled out. Empirical tests of the theory have found that some of its predictions are not borne out (Miller, 1965).

Consistency Theories

Heider's Balance Theory. Heider proposed that the relationships between two persons (P and O) (students) to one other entity (X) (school) may be either balanced or unbalanced. Accordingly, the balanced states exist when all three relations are positive (as in liking), or when two relations are negative (disliking) and one is positive. Heider (1946, 1958) proposed that unbalanced states produce tension and generate forces to achieve or restore balance.

The approach is highly simplified and difficult to apply to an educational setting including more than two people. Its greatest faults may be that it is too simplified, does not consider multiple factors, and is not explicit about resolving unbalanced states.

Osgood and Tannenbaum's Congruity Theory. The congruity theory (Osgood and Tannenbaum, 1955) is an extension of the balance notion concerned with the direction of attitude change. The principle of congruity "holds that when change in evaluation or attitude occurs, it always occurs in the direction of increased congruity, with the prevailing frame of reference." Attitudes change in the direction of reducing inconsistency or ambiguity. The theory goes further than the balance notion by specifying degrees of evaluation; but generally, it is still limited to two persons.

Festinger's Cognitive Dissonance Theory. Cognitive dissonance exists when a person possesses two cognitions--one of which is the obverse of the other (Festinger, 1957). A basic assumption is that a state of dissonance motivates the person to reduce or eliminate the disssonance and that the person seeks to avoid such situations. The theory has both good and bad points. It has produced interesting research, but lacks a clearly stated internal structure and adequate prediction of its results.

Reactance Theory. As an outgrowth of dissonance theory, Brehm (1966) proposed the concept of reactance to explain attitude change that takes place toward certain objects or activities under certain conditions. Reactance theory concerns itself with situations where one's freedom of choice is restricted. Attitudes toward an object become more favorable if the opportunity to obtain that object is suddenly restricted.

Depending upon the situation, consistency theories may be applied to certain educational settings. However, theories appear to be more limited than other theories which account for multivariate factors.

Functional Theories. The functional approach is a phenomenological one which maintains that a stimulus can be understood only within the context of the recipients' needs and personality. People hold attitudes that fit their needs; and in order to understand their attitudes, we must determine what those needs are. Attitudes serve as: (1) an instrumental or adjustive function; (2) an externalization function to develop or change; (3) a knowledge function to give meaning to an object; and (4) a value-expression function (Katz, 1960). The functional approach may be useful in understanding individual situations, but it may become cumbersome in trying to generalize across situations.

Variables Associated with School Attitude

A review of selected studies presented a number of variables thought to be associated with attitudes. These included the following: achievement, self-concept, parents and the home environment, the teacher and classroom environment, instructional practices and special programs, sex, intelligence, socioeconomic status, and student interests. Each will be discussed separately below.

Achievement. Some evidence suggests that relationships are found between higher achievement and more positive attitudes. Ransbury (1973) showed that fifth- and sixth-grade children attributed their attitudes toward reading mainly to their ability to read. However, Askov and Fischbach (1973) stated that the efforts of the school should be focused on the improvement of reading skills and achievement since attitudes become more positive with improved achievement. Students may improve concurrently in achievement and attitudes, and longitudinal effects may increasing reading behavior (Healy, 1965); but positive attitudes are not necessarily maintained over time (Johnson, 1969).

Regarding reading, Alexander and Filler (1976) concluded the following:

1. Some children may perceive that their ability to read is responsible for their attitude, thus making reading improvement programs a high priority for some underachievers.
2. The attitudes of the reader toward material may affect his or her level of comprehension of that material.
3. The development of more favorable attitudes may result, for some students, in increased achievement and more reading that may be maintained over time.
4. For some students, a positive attitude toward reading in the lower grades may not be self-maintaining and may lessen over time. Attention to attitude development and maintenance is important at all levels.
5. Although relationships are sometimes found between achievement and attitudes, there is not always a positive correlation between high achievement and favorable attitudes (pp. 5-6).

Self-Concept. As mentioned earlier, self-concept may play an important part in a person's attitude in general (Bem, 1967, 1970). Quandt (1972) showed evidence of a positive correlation between levels of reading achievement and levels of self-concept. There has not been much research investigating the relationship between self-concept and attitude toward reading or school in general. However, because of self-concept, the reader may become progressively better or worse with reading. Success generally leads to greater effort; failure tends to cause less effort, which results in progressively poorer performance as the learner advances in school.

Parents and the Home Environment. Ransbury (1973), mentioned previously, showed that respondents in her study believed that parents greatly influenced their children's reading attitudes. Seigler and Gynther (1960) showed that parents and the home environment may have an effect on the attitude of some students. In some instances, an educational program for parents, designed to make them aware of the possible effects of their behaviors and attitudes, may be necessary before the school can effectively improve attitudes.

The Teacher and Classroom Atmosphere. Both the teacher (what he/she is and what he/she does) and the general atmosphere of the classroom may have effects on positive attitude, development and maintenance. Furthermore, a teacher's attitude toward himself/herself can promote either a positive or negative classroom atmosphere (Quick, 1973).

Instructional Practices and Special Programs. Healy (1963) found that attitudes of ten-year-olds toward reading could be changed by utilizing certain instructional practices. The plan most conducive to positive attitude change was one in which children were allowed to choose reading groups according to interests and select reading materials from a wide variety. Rigid ability grouping was the practice found to be least conducive to attitude change. Allen and Main (1973) found that instructional gaming and tournaments were effective in improving attitudes toward specific subjects.

Sex. There is a limited amount of information available on the relationship between sex and attitudes. Some research suggested that, in general, girls may have more favorable attitudes than do boys (Hansen. 2969), while others have failed to find any difference (Perry and Weintraub, 1966). Teachers should be cautioned not to assume that girls will necessarily have more positive attitudes than will boys (Alexander and Filler, 1976).

Intelligence. Groff (1962) found negligible relationships between intelligence and attitudes. Research does not seem to support the notion that the higher the intellectual level of the learner, the more positive will be his/her attitudes toward school.

Socioeconomic Status. Filler (1973) investigated the relationships among reading attitudes, reading achievement, and socioeconomic status. The results were not conclusive, but there were observable trends. Some evidence indicated that there was no appreciable difference between the attitudes of students from two socioeconomic levels at given achievement stanine levels. Heimberger (1970) concluded that the general opinion that children from lower socioeconomic levels have poorer attitudes than students from upper levels was not true for his sample of 1,093 students.

Student Interests. Many authorities believe that interests and attitudes are closely related. Spade (1974) feels that the most important single influence on attitudes toward reading is the student's interest. Harris and Sipay (1975) state that "attitudes do not necessarily entail interest, but interest does involve an attitude."

Implications: Since the nature of the study of attitudes is rather tentative, it is hoped that the District will be able to implement some of the suggestions of Alexander and Filler (1976) and Vance (1973) in testing some of the attitude measures which are now extant for methodological improvement and for purposes of validation. For example, those applied programs that are undertaken should be aimed not only at improving student attitude, but concurrently at improving achievement as well.

The theoretical concepts reviewed offer potential for research applications. These can be specified in behavioral terminology and used in the classroom situation. The variables and processes of the theories (e.g., differential reinforcement, contingency management, peer pressure on attitude change, etc.) should be translated into usable form for research application (e.g., self-report measures, teacher observation, and checklists). Then, operating within the school setting the three forms of applied research (descriptive, demonstrational, and analytic/optimizing) can be utilized to impact school attitude toward specified curriculum areas of concern.

Additional Information:

AR77-080-9-9 Attitude Toward School: An Overview of Theory and Research in the School Setting, 1977, Larry R. Ridener.

AR77-086-3-9 A Model for Instructional Analysis: Impacting Academic Achievement, School Attitude, and Academic Self-Concept through Evaluation, 1977, Michael R. Vitale.

76-892 A Plan for Applied Research, 1976, Michael R. Vitale.

75-568 Student Perception Preference, Attitude, and Academic Self-Concept in English, Social Studies, Mathematics and Science, 1975, Michael R. Vitale.

AR77-079-3-9

Abstract

A Review of the Literature on Self-Concept: Definition, Measurement, and Research Findings in the School Setting

Evaluator: L. Nicora Simmons

Objectives of the Program: Statements of educational goals often tend to emphasize either affective or cognitive outcomes. Many model programs thus become categorized as self-enhancement or skill-development models. The former, of course, focus upon student self-concept and its enhancement in the belief that students' individual self-concepts powerfully affect every aspect of their lives, including their school achievement. Becker (1971) defines the objectives held by proponents of this view at its extreme:

> Many reform-minded educators, sociologists, and psychologists...conclude that educators should quit worrying about teaching kids and focus all efforts on making children happy, confident, loved, and respected. (p. 187)

Programs focusing upon self-enhancement, or self-concept, generally have such objectives in mind.

Purpose of the Review: This review attempted to cull from the literature the present state of knowledge and research relevant to self-concept—its definition, measurement, and relation to a few of the many variables comprising a student's educational career.

Design of the Review: A brief overview of trends in the emphasis upon cognitive and/or affective outcomes in the educational scene preceded a discussion of the various definitions of self-concept. Measurement of self-concept was then focused upon. Crandall's (1973) discussion of various measurement approaches and measurement validity was used to exemplify problems in this area. Then, from the more than 200 self-concept measures available, eleven which Crandall (1973) and Shavelson et al. (1976) identified as superior were presented. Next, the review discussed the commonly recognized relationships between self-concept and some other variables — student achievement, attitude-toward-school, ethnicity, and program participation. The review ended with a list of conclusions based upon preceding discussions.

Review Conclusions:

1. Shavelson et al. (1976) portray a pendulum-like swing of educational goals between either cognitive outcomes or affective outcomes. The literature suggests, however, that even if the swing were presently toward cognitive outcomes, enough has been learned about the importance of affective outcomes that they could never again be totally abandoned in favor of cognitively oriented educational goals. Rather, it would seem that the thesis-antithesis swing between one or the other might level off into a synthesis of the two.

2. The literature (e.g., Crandall, 1973; Epstein, 1973; Shavelson et al., 1976) strongly suggests that research on self-concept must address problems of definition, measurement, and interpretation before addressing substantive problems. The proliferation of incomparable tests and test results based upon amorphous and/or exclusive definitions of self-concept has tended to clutter the research arena with stumbling blocks rather than to advance knowledge of student self-concept and its effects. In sum, self-concept needs to be defined more clearly and modes of measurement need to be more adequately validated before student test results can be seriously considered.

3. Despite the over-abundance of self-concept measures and the lack of validation data as well as the lack of demonstrated equivalence among such measures, there is some consensus of opinion that a few measures have emerged as potentially useful. Crandall (1973) and Shavelson et al. (1976) agree in their lists of scales upon the utility of the Coopersmith Self-Esteem Inventory and the Piers-Harris Children's Self-Concept Scale, for instance (though it might be noted that Crandall identified the Tennessee Self-Concept Scale as the number one "best," and that Shavelson included two tests specifically designed for use in measuring the effects of intervention programs — the How I See Myself Scale and the Sear's Self-Concept Inventory).

4. Self-concept and achievement. Refined techniques of data analysis may be able to eventually solve the puzzle of the causal relationship between self-esteem and scholastic achievement. Most recent analyses tend to indicate the causal predominance of achievement; but ultimately, from the literature one can conclude only that a relationship between self-concept and achievement does exist. The extent of that relationship or the causal relationship between them has not yet been conclusively determined.

5. Self-concept and ethnicity. Weakness of definition, measurement, and interpretation is coupled with so many intervening factors — desegregation of the schools, a confused flooding of the literature with politically and/or ethnically oriented "studies," and so on — it is not yet possible to derive from the literature a conclusive definition of the relationship between self-concept and ethnicity.

6. Self-concept and program participation. Though numerous studies have focused upon the effects of different types of programs on self-concept, the literature reveals no conclusive evidence to date.

Additional Information:

AR77-079-7-9 A Review of the Literature on Self-Concept: Definition, Measurement, and Research Findings in the School Setting, 1977, L. Nicora Simmons.

2133

75-616

Abstract

Enrollment and Facilities Projection Program: General Description and Users Guide

Analysts: William D. Gattis,
M. William Dunklau

The Dallas Independent School District (DISD) Enrollment and Facilities Projection Program consists of three parts: a means of projecting enrollment, a means of converting enrollment to teacher and facilities requirements, and a means of reporting the projections. Inputs consist of birth and enrollment history data, projected average teachers salaries, class loading by subject code, and facilities data for each school in the district. Data calculated are saved and can be output at the option of the user in a variety of printed reports.

The program is operated in an interactive mode. A detailed outline of dialogue and operational flow is contained in the Users Guide.

Once a basic set of input data is prepared, the Local Education Agency (LEA) Model can be used to examine the effect on the school district of variables affecting enrollment and facilities availability. Each of these variations can be run and reported as a separate case. The reports section of the LEA Model will report the results, and can also generate reports comparing selected cases.

Input Requirements

Three input data files must be prepared by the user before running the program. These consist of an enrollment history file (ENRLH), a teacher utilization file (TRPARA), and a facilities data file (FACDAT).

The enrollment history file consists of three parts: beginning dates for history and projection, birth history data, and enrollment history data.

The teacher utilization file consists of two parts: projected average teachers salaries by year for the next ten years, and class loading data, ordered by subject code and by school.

The facilities data file lists facilities data by school for each school in the district. These data describe the rooms available at each school by type code.

Functional Description

The Enrollment and Facilities Projection Program consists of three parts: a means of projecting enrollment, a means of converting enrollment to teacher and facilities requirements, and a means of reporting the projections.

Enrollment Forecasting

The enrollment projection is based on a cohort survival ratio model. In this model, the ratio of the number of students in a given grade to the number of students one grade higher in the following year (called the "cohort survival ratio") is calculated. Then statistics describing the cohort survival ratio over a period of time can be calculated such as mean, variance, and standard deviation. The statistics calculated are then output in the form of a printed report.

Three methods are available for calculating the statistics on cohort survival. The first is called the Mean of the Ratios. In this method, the cohort survival ratio is calculated for each grade for each year of data. The mean and variance of these ratios are then calculated and reported. The second method is called the Ratio of the Averages. In this method, the average number of pupils in a given grade is divided by the average number of pupils a year later in the following grade to determine the cohort survival ratio. The variance in the ratio of these averages is then calculated and reported. The third method involves first calculating the cohort survival ratio as in method one. The logarithm of each ratio is determined, and the mean of the logarithms and the variance in the means are calculated. The anti-log of the mean is then determined, and the results of these calculations are reported. The anti-log of the mean is represented as the "log normal cohort survival ratio." The cohort survival ratios calculated can be used as is to forecast future enrollment by grade, or the ratio can be modified by adding or subtracting some fraction of a standard deviation, and the modified ratio used to forecast future enrollment.

In the Enrollment and Facilities Projection Program, survival ratios are calculated for the total enrollment of the District, for the entire historic period of coverage. The ratios include the ratio of births six years previous to first-grade enrollment, as well as the ratio of births five years previous to kindergarten enrollment; thus kindergarten and first-grade enrollment are predicted on the basis of births, while enrollment in any other grade is simply the cohort survival ratio times the total enrollment in the previous grade one year earlier.

The last year of data is used with the survival ratios to calculate the enrollment in the first year of projection. The same ratios are applied using the first year of projection to project a second year and so forth until the final year of projection is reached. Enrollment is distributed among schools on the basis of the ratio of the enrollment in a given grade in a given school to the total enrollment in that grade in the district. These ratios are applied year by year in order to calculate the enrollment in a given school.

In addition to forecasting enrollment directly from the cohort survival ratios, the program makes provision for inward and outward migration of students. Migration can be applied to a district as a whole, representing growth or decline in total population, or it can be applied to an individual school and grade. If the migration figures are applied at the individual school level, it is the user's responsibility to see that the net migration within the district is 0; that is, if 50 pupils are removed from one school, 50 pupils must be entered into another school. Any net change in total enrollment must be handled at the district-wide level.

Teacher Requirements

Once the enrollment by school has been calculated, the teacher requirements can be determined. For an elementary school, teacher requirements are calculated on the basis of pupil/teacher ratios by grade. The enrollment in a grade is multiplied by the reciprocal of the pupil/teacher ratio in order to calculate the number of teachers required for a given grade.

For secondary schools, the number of teachers is based on the subject code. An array of ratios is calculated, each of which reflects the fraction of the pupils (in a given school or district-wide) taking a given subject multiplied by the reciprocal of the average number of pupils a teacher in a particular subject area meets for an average day. The matrix of ratios is multiplied by the total enrollment in the school in order to calculate the number of teachers required to teach a given subject in that school.

Salary is calculated on the basis of an average teacher's salary by year. The salary requirement at a school is obtained by multiplying the total number of teachers at that school by the average salary to be paid in a given year. This number is recorded as the teacher salaries for that year.

Facilities Projection

The facilities forecast is based on the teacher forecast. In general, rooms are assigned on the basis of one room for a teacher, with the class of room being determined by the subject code. The number of rooms required is increased by a fraction to reflect the fact that the room may be utilized by the teacher for activities other than classes. Thus in a 7-period day in which the room is utilized 6 periods for classes, seven-sixths of the total number of rooms is calculated as the number of rooms required.

The facilities portion of the program assumes that the current building program is fixed; however, the total number of available rooms at a given school can be changed for any one year of the projection. If this is done, the change is carried forward to all future years.

Major Reports

All of the data for district-wide totals of enrollment, teachers and facilities as well as totals of enrollment, teachers and facilities by individual schools are saved in data files and can be printed by the report writing section of the program at the option of the user. Comparative reports are also available for total enrollment and for comparison among individual schools.

The reports available are:

District-wide Reports
- Total Enrollment (by case)
- Total Teachers (by case)
- Total Facilities (by case)

School Reports
- School Enrollment (by case and school)
- Teacher Requirements (by case and school)
- Facilities Utilization (by case and school)

Comparative Reports
- Total Enrollment (two cases)
- School Enrollment (two cases, school and grade)
- Teacher Requirements (two cases, school and grade)
- Facilities Utilization (two cases and school)
- Differences in Enrollment, Teachers, and Facilities (two cases and schools)

Additional Information:

75-620 Food Management System-Daily Production Reports: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 55 pages.

75-619 Registration Management System: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 65 pages.

75-618 Financial Projection Program: General Description and Users Guide, 1975, William Dane Adkinson, Terry L. Bishop, 209 pages.

75-617 Faculty Projection Program: General Description and Users Guide, 1975, John D. Davis III, M. William Dunklau, 81 pages.

75-616 Enrollment and Facilities Projection Program: General Description and Users Guide, 1975, William D. Gattis, M. William Dunklau, 31 pages.

Abstract

Under-Utilized School Evaluation

Analyst: Kevin van Noppen

Purpose: This study is intended to determine which schools within the District are cost effective.

Design: Balance sheet analysis was found to be the technique best suited for this study. The group of schools selected for the analysis consists of the twenty schools with the lowest enrollment within the District, as suggested by the Deputy Associate Superintendent for Support Services. A cost-per-student ratio is determined so that each school's ratio can be ranked in order of cost ineffectiveness. Costs are totaled from six categories. The first category is major maintenance costs for the summer of 1977. These costs are derived from planned major renovations of heating and air conditioning systems, structural repairs, ground renovations and specific contractual jobs. The second cost category is general maintenance costs for the summer of 1977. These costs include repairs to instructional equipment, general ground renovation and superficial building renovation. Major and general repairs are summed to equal total maintenance costs. The third cost category is instructional cost. These costs include teachers' salaries and administrative salaries for that school. The fourth cost category is the cost of food service and vocational education for each organization. Instructional, vocational, and food service costs are totaled to equal administrative costs. The fifth cost category is the combination of kilowatt demand charges and kilowatt hour charges summed to total electrical costs for each school for the 1976 calendar year. The sixth cost category is gas consumption for each school, available for the last five months in 1976. Gas and electricity charges are totaled to equal total utility costs. Total maintenance costs, total administrative costs and total utility costs are summed to equal total costs. Total costs are then divided by enrollment to yield cost per student. The higher the cost per student the less cost effective a school is. The cost-per-student figures are ranked in two ways. The first way is the ordinal ranking of schools starting with the most cost ineffective. The second manner of ranking places each school within capacity utilization intervals. There are five intervals of ten percentage points each ranging from zero to fifty percent utilization. Within each interval schools are ranked in order of increasing cost effectiveness.

Question 1: What formula can be utilized to assess cost-effectiveness of school operations, determine the resource requirements of the school based upon enrollment, measure cost effectiveness of individual schools at that level of resource requirements and identify under-utilized schools?

Results: The formula developed for the purpose of assessing cost effectiveness of school operations utilizes cost per student ratios. The ranking of cost-per-student ratios indicates relative cost effectiveness. The equation used to determine cost-per-student is as follows.

$$\text{Cost per student} = \frac{\text{Administrative Costs} + \text{Maintenance Costs} + \text{Utility Costs}}{\text{Enrollment per School}}$$

Based on the formula the five most cost ineffective schools in the analysis are:

1) Sequoyah with a cost per student equaling $2821.53.
2) Kramer with a cost per student equaling $867.41.
3) Dealey with a cost per student equaling $850.12.
4) Atwell with a cost per student equaling $789.25.
5) Withers with a cost per student equaling $788.18.

By utilizing the cost per student analysis described in the formula and shown quantitatively in Table 1, the rank order of cost ineffectiveness can be determined as shown in Table 2.

The selection of which schools should be reorganized must be prefaced by considering the quantity of volunteers at each school. The quantity of school volunteers at each school provides an indicator of the political feasibility of closing a school and provides a measure of neighborhood interaction within a school thusly indicating just how integral a part of the community a school is.

The distribution of the underutilized schools is skewed toward the Northwestern Subdistrict. Fifty-five percent of the underutilized schools are in the Northwestern Subdistrict, twenty-five percent in the Northeastern, fifteen percent in the Southeastern, and five percent in the Southwestern Subdistrict. Schools in Seagoville and East Oak Cliff Subdistricts are not among the twenty least enrolled schools in the District.

Five underutilized schools in the Northwestern Subdistrict fall within four and one-half miles (street distance) of each other as shown on the accompanying map. These five schools range from $607.06 to $788.18 per student, 48 to 110 volunteers per school, and from 18.7 percent to 29.6 percent utilization.

Kramer and Dealey are within a mile and one half of each other. Their costs per student and capacity utilizations are similar with Kramer having 65 volunteers and Dealey 7.

Sequoyah and Carver are within one half of a mile of each other. Sequoyah far exceeds Carver in all measures of inefficiency. Neither school has any volunteers.

2139

Table 1

Cost Derivation

Name	Campus Code No.	Enroll-ment	Maint. Costs	Admin. Costs	Util. Costs	Total Costs
Anderson	067	504	13,897	336,881	31,602	382,380
Atwell	042	486	9,929	346,349	27,299	383,577
Sequoyah	057	89	9,160	216,864	25,093	251,117
Adams, N.	233	187	4,737	103,714	10,456	118,907
Cabell	119	285	7,254	148,353	18,199	173,806
Carver	124	334	24,966	218,071	13,337	256,374
Dealey	134	150	7,740	109,593	10,185	127,518
DeGolyer	135	165	5,160	104,624	10,618	120,402
Gill	147	267	8,213	141,444	14,906	164,563
Gooch	148	272	4,902	148,116	12,103	165,121
Hassell	154	216	16,315	137,832	7,698	161,845
Hexter	153	197	4,938	104,975	12,448	122,361
Kiest	166	339	7,570	158,866	16,591	183,027
Kramer	169	123	6,746	88,161	11,785	106,692
Macon	180	300	32,147	143,965	11,577	187,689
Milam	184	191	7,038	109,006	6,220	122,264
Titche	216	261	5,387	146,542	10,230	162,159
Travis	217	271	4,639	154,330	14,783	173,752
Park	222	227	10,898	124,490	10,906	146,294
Withers	230	171	9,502	114,443	10,835	134,780

Table 2

Rank Order of Cost Ineffectiveness

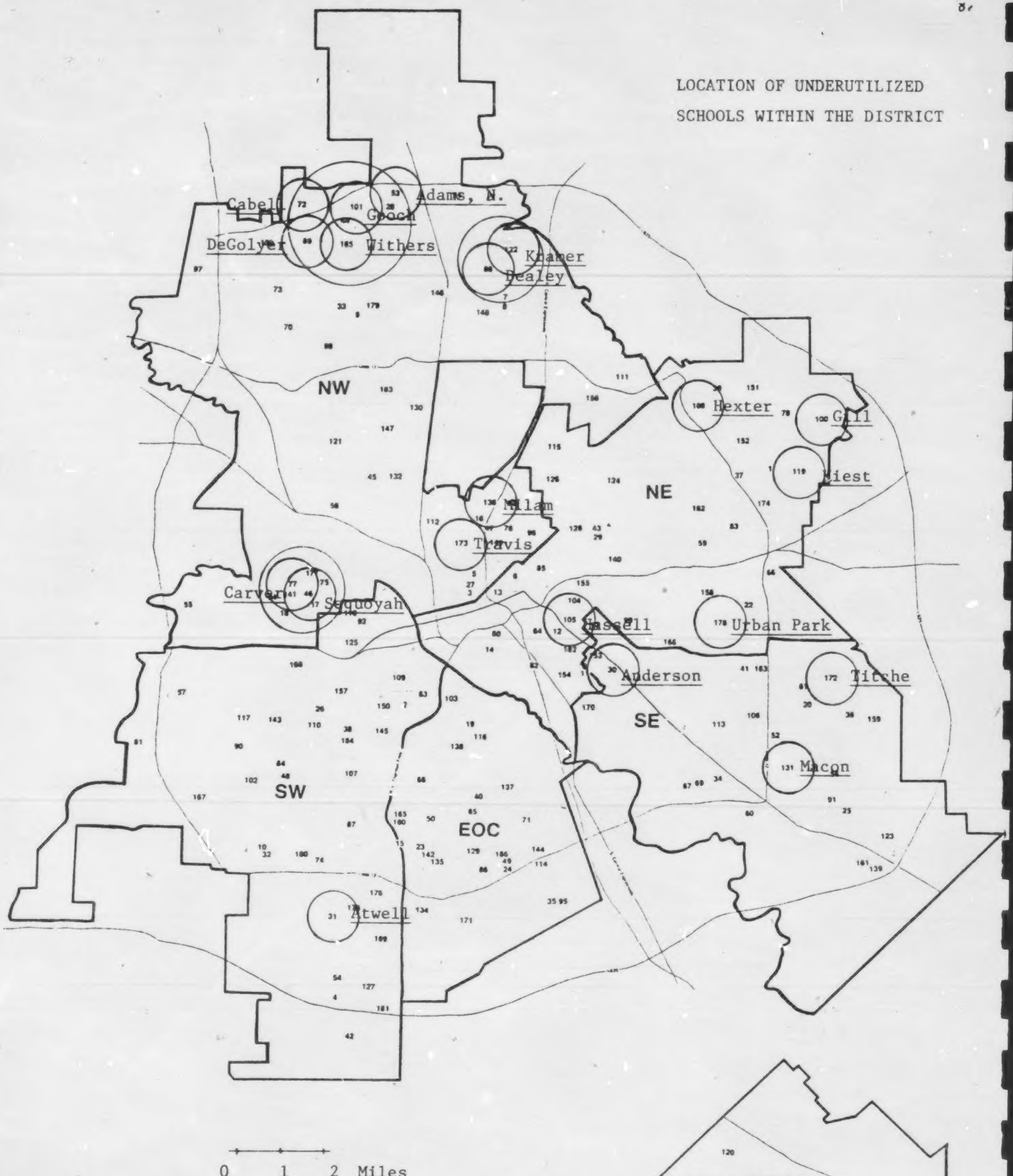
School	Cost/Student
Over $850.00 per student	
1) Sequoyah	$2,821.53
2) Kramer	867.41
3) Dealey	850.12
Between $750.00 and $850.00 per student	
4) Atwell	789.25
5) Withers	788.18
6) Carver	767.58
7) Anderson	758.69
Between $650.00 and $750.00 per student	
8) Hassell	749.28
9) DeGolyer	729.70
Between $550.00 and $650.00 per student	
10) Urban Park	644.46
11) Travis	641.15
12) Milam	640.12
13) Macon	625.63
14) Titche	621.29
15) Hexter	621.12
16) Gill	616.37
17) Cabell	609.84
18) Gooch	607.06
Between $450.00 and $550.00 per student	
19) Kiest	539.90
20) Nathan Adams	510.33

Table 3

Rank Order of Underutilized Schools by Cost-per-Student

Name	Percent Utilized	Cost-per-Student	No. Volunteers
		From 0% to 10% Utilized	
Sequoyah	5.5%	$2821.53	0
		From 10% to 20% Utilized	
Kramer	15.37%	867.41	65
Dealey	18.75%	850.12	7
Withers	17.10%	788.18	110
Carver	16.70%	767.58	0
DeGolyer	19.41%	729.70	100
Adams, N.	18.70%	635.86	56
		From 20% to 30% Utilized	
Atwell	28.50%	789.25	0
Anderson	20.10%	758.69	11
Hassell	22.73%	749.28	0
Urban Park	28.37%	644.46	22
Hexter	24.62%	621.12	46
Cabell	21.92%	609.84	48
Gooch	29.56%	607.06	50
Kiest	26.07%	539.90	28
		From 30% to 40% Utilized	
Travis	33.87%	641.15	25
Titche	32.62%	621.29	14
Gill	31.04%	616.34	31
		From 40% to 50% Utilized	
Milam	47.75%	640.12	28
Macon	50.00%	625.63	26

LOCATION OF UNDERUTILIZED SCHOOLS WITHIN THE DISTRICT


Cabell
Adams, N.
Gooch
DeGolyer
Withers
Kramer
Dealey
NW
Hexter
Gill
Miest
NE
Milam
Travis
Carver
Sequoyah
Hassell
Urban Park
Anderson
Titche
SE
SW
Macon
EOC
Atwell
SEAGOVILLE
0 1 2 Miles

Additional Information:

LP77-090-9-5, Under - Utilized School Evaluation 1976-77, 1977, Kevin van Noppen.

75-617

Abstract

Faculty Projection Program:
General Description and Users Guide

Analysts: John D. Davis III,
M. William Dunklau

The Dallas Independent School District (DISD) Faculty Projection Program predicts on a year-to-year basis the number and cost of teachers within a Local Education Agency (LEA). The program was created in response to a need -- the need for means by which school administrators could quantitatively plan for expenditures which constitute approximately 75 percent of their operating budget -- personnel costs. The program provides a means of integrating at one time many factors which affect faculty flow within a school district.

The program predicts the number and cost of teachers starting, terminating, remaining, and needing to be hired for each year. Teachers may be grouped by one or more variables such as race, sex, salary group, subject area, or professional status. The program moves teachers through the salary schedule and terminates them according to frequencies established by historical data. It determines the number of teachers required from enrollment data and from previous years' curriculum data, and alternatives introduced externally by the user. The program can project teacher requirements for up to nine years into the future.

The Faculty Projection Program is written in FORTRAN IV and was originally implemented on a Burroughs B-5500 computer. Memory requirements in a nonvirtual storage environment are approximately 500,000 bytes. Peripheral equipment requirements are a disk, two tape drives, a card reader, and line printer. Special arrangements can be made in order to implement the program in computer environments where less than 500,000 bytes of memory are available. Computer systems having less than 500,000 bytes of memory but with virtual storage available can implement the program directly.

Input Requirements

The input requirements for the Faculty Projection Program can be described as being of two general types: data base and parametric.

Data Base Input Requirements

The level of accuracy at which the program performs is directly dependent upon the accuracy and extent of the teacher data base. A minimum list of elements to be contained in the data base would be: social security number, race/sex, termination reason(s) and date(s), course assignments, number of students in each course assignment, and pay grade/pay step. A minimum of three years of teacher data is necessary with four to six years of data being much more desirable. The data base would start with the current or last year and go back in time from there.

Parametric Input Requirements

The user has the ability to specify as few of or as many of the available parametric options as are deemed necessary for a given projection. The available options may be described as being of two general types: (a) those that reference the data base, (b) those that cause deviations from data base trends. Included in the first type of option or variable would be race, sex, subject area, degree, pay grade and pay step. The second type of option would include the ability to specify numbers of teachers and/or students, distribution of teachers and/or students by subject taught or taken, respectively, or by count, and salary changes at any or all levels. Generally, the second type of option can be specified for any or all years of the projection.

Functional Description

The prediction mathematics used in the Faculty Projection Program is a probabilistic process. Using the starting complement of teachers for the current year, the process predicts the status of the group for the next year using transition probabilities calculated from the data base. Some teachers will have received advanced degrees and will be paid on a higher pay grade. Some teachers will switch teaching areas. Some will terminate. Most of the remaining teachers will advance one pay step in the salary schedule. The program anticipates these possibilities by calculating transition probabilities for each possible event. For example, if the salary schedule were limited to three levels and included a provision for terminations, four transition probabilities would be calculated for each salary level. Suppose our three levels are bachelor degree with 0-4 years experience, bachelor degree with 5 or more years experience, and advanced degree.

Suppose further that the historical data show that 70 percent of the bachelor-degree personnel with 0-4 years experience remain in that pay level for the following year, 10 percent advance to the 5 or more years of experience level, 10 percent obtain advanced degrees, and 10 percent terminate. And suppose that the historical data show that 75 percent of the bachelor-degree personnel with five or more years of experience remain in that pay level, 15 percent obtain advanced degrees, and 10 percent terminate. Finally, suppose that 95 percent of the personnel with advanced degrees stay from year to year. Now, by organizing these transition probabilities into rows, the program creates what is called a transition probability matrix. The transition probability matrix for the above data is represented by:

$$\begin{array}{ll|cccc|}
 & & \text{BS/0-4} & \text{BS/5 or more} & \text{Advanced degree} & \text{Terminate} \\
\text{SALARY} & \text{BS/0-4} & 0.70 & 0.10 & 0.10 & 0.10 \\
\text{LEVELS} & \text{BS/5 or more} & 0.00 & 0.75 & 0.15 & 0.10 \\
 & \text{Adv. Deg.} & 0.00 & 0.00 & 0.95 & 0.05
\end{array}$$

If the starting complement of teachers were composed of 40 teachers with 0-4 years of experience, 40 teachers with 5 or more years of experience, and 20 teachers having advanced degrees, then the program would create a starting teacher vector represented mathematically by:

$$[40 \quad 40 \quad 20]$$

By performing a multiplication of the starting teacher vector times the transition probability matrix, the program predicts the status of the group one year later. Vector-matrix multiplication is performed by multiplying each element of the vector by each element of a column in the matrix and summing the results to create an element in the corresponding column of the product vector. For example, the number of bachelor-degree personnel with 0-4 years of experience is predicted to be 40 x 0.70 + 40 x 0.00 + 20 x 0.00 = 28.0.

The matrix multiplication is shown by:

$$[40 \quad 40 \quad 20] \quad \times \begin{bmatrix} 0.70 & 0.10 & 0.10 & 0.10 \\ 0.00 & 0.75 & 0.15 & 0.10 \\ 0.00 & 0.00 & 0.95 & 0.05 \end{bmatrix} = [28 \quad 34 \quad 29 \quad 9]$$

The result of the matrix multiplication predicts 28, 34, and 29 teachers one year later in each salary level, respectively. Nine teachers are predicted to terminate. There were 100 teachers in the starting complement and all 100 are accounted for in the prediction since 28 + 34 + 29 + 9 = 100. The process, therefore, has predicted the number and status of the teacher who will remain and the number of teachers who will terminate at the end of the current school year.

The program predicts next year's starting complement of teachers by using the remaining teachers from the current year and by hiring new teachers as needed. If enrollment and distribution of subjects taken remain similar from one year to the next, terminating teachers will tend to be replaced in the hiring process. If enrollment or distribution of subjects taken or other factors change, the hiring process will reflect the change. The hiring process is added to the previous diagram to construct the complete faculty flow process.

By introducing the hiring mechanism to the process, a new "Starting Complement of Teachers" can be calculated. With the new "Starting Complement of Teachers" ~~the~~ process can then be repeated in order to project teacher requirements for the following year, and so on, for up to nine years of projections.

The major report produced by the program is a year-end description report. It includes the starting complement of teachers, the remaining teachers and their pay levels (reported in pay-level groups), and the terminating teachers reported by termination reason.

Additional Information:

75-620	Food Management System - Daily Production Reports: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 55 pages.
75-619	Registration Management System: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 65 pages.
75-618	Financial Projection Program: General Description and Users Guide, 1975, William Dane Adkinson, Terry L. Bishop, 209 pages.
75-617	Faculty Projection Program: General Description and Users Guide, 1975, John D. Davis III, M. William Dunklau, 81 pages.
75-616	Enrollment and Facilities Projection Program: General Description and Users Guide, 1975, William D. Gattis, M. William Dunklau, 31 pages.

LP77-087-3-5

Abstract

Faculty Projections 1977-1980

Analyst: Phadamakar A. Patankar

Description and Purpose: The purpose of this project is to estimate the size and cost of the instructional faculty for the next three school years and to identify key trends of instructional faculty employed by DISD over the past eight school years.

Population and Data: The population for this study consists of instructional faculty plus nurses and librarians during the eight-year period 1969-70 through 1976-77. Instructional faculty is defined to include all classroom teachers teaching at least one class with a student enrollment of at least one. Resource teachers, curriculum writers, and other non-classroom teachers are not included as instructional faculty for the purpose of this report.

Methodology: The major research questions are:

1. What are the projected size, average salary, and total salaries of instructional faculties for the school years 1977-78 through 1979-80?
2. What is the projected composition of instructional faculty by salary level for each of these school years?
3. What is the projected composition of instructional faculty, terminations, and hiring requirements by subject area for each of these school years?
4. What are the key trends of instructional staff employed by DISD over the last eight years as indicated by the longitudinal personnel data file?

The methodology for addressing Questions 1, 2, and 3 above consisted of updating and editing the longitudinal personnel file, using a probabilistic process to project instructional faculty composition, and adjusting calculated parameters to normalize the projection for the first year which was selected to be the current (1976-77) school year.

The methodology for addressing Question 4 consisted of referencing the longitudinal personnel file, calculating frequency distributions of faculty status by ethnicity, sex, salary level, and subject area, and terminations by salary level, last school assignment, ethnicity, and sex.

Results:

1. With enrollment expected to decline from some 135,974 full-day equivalent students this year to some 127,071 students in three years, the projected number of teachers required will decline from approximately 6,329 this year to approximately 5,914 in the same period.

   The projected size, average salaries, and total salaries of the instructional faculty for the school years 1977-78 through 1979-80 are presented below.

Teacher and Salary Requirements

	Actual	Projected		
School Year	1976-77	1977-78	1978-79	1979-80
Base Salary	$ 9,336	*	*	*
Enrollment[1] (K-6)	70,616	$ 68,726	$ 67,286	$ 66,129
Enrollment (7-12)	65,358	63,593	62,261	60,942
Enrollment (K-12)	135,974	132,319	129,547	127,071
Teachers Required	6,329[2]	6,159	6,030	5,914
Average Salary Expressed as a Multiple of Base Salary	1.409	1.423	1.435	1.462
Total Salaries	$83,289,000	*	*	*

*Base Salary not determined for 1977-78 through 1979-80; hence, Total Salaries cannot be calculated for those years. Given a Base Salary the Total Salaries can be determined by multiplying it the number of Teachers Required and that product by the Average Salary expressed as a Multiple of Base Salary.

[1] Enrollments provided by Department of Research, Evaluation, and Information Systems (Enrollment Projections for 1977-81 by Kevin van Noppen) and adjusted for full-time equivalent kindergarten enrollment.

[2] Projected numbers of teachers required for 1976-77 agree with actual numbers for the same year.

2. Of the 6,329 classroom teachers in 1976-77, approximately 3,561 are on a Baccalaureate pay schedule, 2,740 are on a Master's pay schedule, and some 20 are on a Doctorate pay schedule as shown in the following table.

Faculty Composition by Salary Level

Salary Level		Number of Faculty			
		Actual	Projected		
Grade*	Step	1976-77	1977-78	1978-79	1979-80
B	0	406	334	333	322
	1	407	322	288	289
	2	281	308	263	237
	3	300	225	246	210
	4	218	234	181	193
	5	225	181	185	148
	6	169	185	151	154
	7	170	151	159	135
	8	151	156	127	128
	9	115	136	136	113
	10	1119	1089	1070	1054
	Total	3561	3321	3139	2983
M	0	45	25	24	21
	1	42	25	21	23
	2	67	54	46	40
	3	93	62	69	60
	4	112	98	75	84
	5	142	116	111	89
	6	115	141	117	114
	7	150	139	153	128
	8	148	159	143	155
	9	134	158	169	149
	10	132	140	154	166
	11	109	139	148	163
	12	1451	1567	1646	1724
	Total	2740	2827	2876	2916
D	All	28	15	15	15
TOTAL**		6329	6159	6030	5914

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[*] Symbols B, M, and D represent the pay grades for teachers with Baccalaureate, Master's, and Doctorate degrees, respectively.

[**] Totals carried forward to the previous table.

The number of teachers on Baccalaureate pay grades is projected to steadily decline from 3,321 next year to 2,903 in three years. The number of teachers on Master's pay grades is projected to gradually increase from 2,827 next year to 2,916 in three years.

3. Faculty size by subject area for this year and the next three years is shown below.

Teacher Requirements

	Number of Faculty			
	Actual	Projected		
Subject Area	1976-77	1977-78	1978-79	1979-80
Agriculture	4	4	4	4
Art	90	87	86	83
Business	101	98	96	95
Distributive Education	12	12	11	11
English Language Arts	504	491	480	470
Foreign Languages	75	72	71	69
Health Occupations	4	5	4	4
Health and P.E.	209	202	199	195
Homemaking	108	106	103	101
Industrial Arts	117	114	111	109
Mathematics	323	314	309	301
Music	163	158	155	152
Science	233	227	222	218
Office Occupations	17	17	16	16
Social Studies	350	341	333	325
Trades and Industry	55	53	53	51
Elementary Education	3213	3127	3061	3009
Handicapped Children	511	497	487	477
School Nurse	85	83	81	79
Librarian	155	151	148	144
TOTAL[1]	6329	6159	6030	5913

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[1] Totals carried forward to first table.

The number of teachers not returning is projected to decrease from 759 at the end of this year to 692 in the third year as shown in the next table.

Projected Terminations at Year End

	Number of Faculty		
Subject Area	1976-77	1977-78	1978-79
Agriculture	0	0	0
Art	9	8	7
Business	6	6	6
Distributive Education	2	2	2
English Language Arts	72	68	67
Foreign Languages	9	7	7
Health Occupations	0	0	0
Health and P.E.	17	15	15
Homemaking	3	6	4
Industrial Arts	6	7	6
Mathematics	40	38	38
Music	25	24	23
Science	25	25	24
Office Occupations	0	2	2
Social Studies	27	24	22
Trades and Industry	2	0	0
Elementary Education	411	391	375
Handicapped Children	73	67	62
School Nurse	14	14	14
Librarian	18	18	18
TOTAL	759	722	692

The number of teachers to be newly employed is expected to decrease slightly from the low 600s for the next two years to about 585 for the third year.

Projected Hiring Requirements

	Number of Faculty		
Subject Area	1977-78	1978-79	1979-80
Agriculture	1	0	0
Art	12	11	10
Business	10	11	12
Distributive Education	0	2	3
English Language Arts	65	61	61
Foreign Languages	3	4	5
Health Occupations	0	0	0
Health and P.E.	0	3	0
Homemaking	1	6	4
Industrial Arts	3	5	4
Mathematics	29	27	27
Music	16	17	16
Science	26	27	26
Office Occupations	0	0	0
Social Studies	6	5	4
Trades and Industry	3	0	0
Elementary Education	344	343	338
Handicapped Children	55	52	47
School Nurse	15	14	14
Librarian	12	14	14
TOTAL	601	602	585

4. Historical analysis and current status of the teaching staff is discussed in two sections: trends of employed instructional faculty, trends of terminated instructional faculty, and analysis of advanced degrees awarded.

Trends of Employed Instructional Faculty. The primary change in composition of instructional faculty with respect to ethnicity and sex over the last eight years is the substantial increase in the proportion of Mexican-American teachers. In the 1969-70 school year, Mexican-Americans with only a few exceptions were teaching in foreign languages, English language arts, and elementary education; this year they are teaching in almost every subject area.

Among the aspects that have not changed significantly over the last eight years are the male and female-dominated subject areas. In the 1969-70 school year, the following subject areas were male dominated (80% or more male teachers): agriculture, industrial arts, and distributive education. This year two of the subject areas are still male dominated: industrial arts and distributive education. In the 1969-70 school-year the following subject areas were female dominated: English language arts, health occupations, homemaking, office occupations, elementary education, handicapped children, school nurse, and librarian. This year, these same eight subject-areas are still female dominated.

The average age of the faculty has declined over the last eight years in almost every subject area. The average age of teachers in each subject area except health occupations is in the 35 to 45 year range this year. There are almost as many subject areas whose average teacher age is in the 35 to 39 range as there are in the 40 to 45 range.

The average pay step for teachers with Master's degrees has changed very little over the past eight years. In most of the subject areas, teachers with Master's degrees have a lower average pay step in the 1976-77 school year than they did in the 1969-70 school year, although the typical change is around 0.2 pay steps of decline per year.

In most subject areas, teachers with Baccalaureate degrees have an average pay step between five and nine. The average pay step has increased in almost all subject areas by a small amount. Adjusting for increases in the teacher base salary, the average salary of teachers with Baccalaureate degrees has increased slightly over the past eight years; the average salary of teachers with Master's degrees has declined slightly over the same period.

Trends of Terminated Instructional Faculty. The number of terminations per year appears to have increased sharply beginning with the 1971-72 school year as shown in Figure 1, Terminations by Year. A reversal of the trend seems evident in the drop of terminations from 1033 in the 1973-74 school year to 563 in the 1975-76 school year.

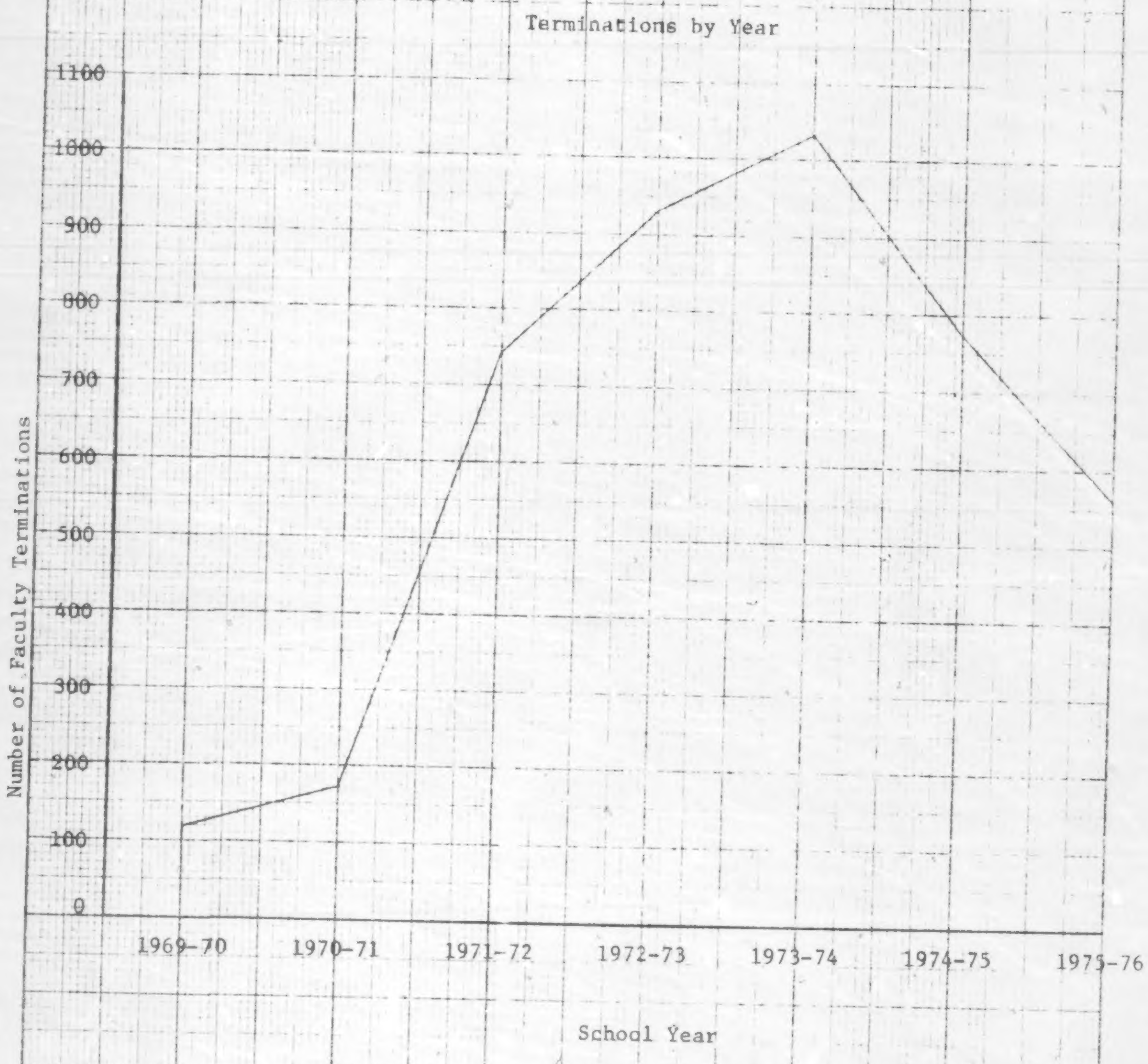

Figure 1

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Over an eight-year period from 1969-70 through 1976-77 termination data is only partially available at this time), over 100 teachers (cumulative) of each age 21-31 terminated as shown in Figure 2, Accumulated Terminations by Age for Years 1969-70 through 1976-77. The most likely ages for teachers to terminate are 24 and 25 with 371 and 380 teachers, respectively, terminating over an eight-year period. The number of terminations generally declines beyond age 33 and stays at under 60 terminations, for each age, until the typical retirement age range, 59 to 70.

Pay steps 0-4 comprise a relatively volatile range for terminations of teachers with Baccalaureate degrees as shown in Figure 3, Accumulated Terminations by Degree and Pay Step for Years 1973-74 through 1976-77 (1976-77 termination data is only partially available at this time). The number of terminations for each pay step in this range is at or over 100, with Pay Step 1 showing a high of 246 terminations. Higher pay steps for teachers with Baccalaureate degrees as well as all pay steps for teachers with Master's degrees show much fewer terminations, except for Pay Steps 10 and 12 which are the maximum pay steps for teachers with Baccalaureate and Master's degrees, respectively.

The last three tables show average termination rates for high schools, middle schools, and elementary schools, over a three-year period from 1973-74 through 1975-76. For most high schools the average termination rate is in the 5% to 10% range. For most middle schools and elementary schools, the average termination rate is in the 5% to 15% range.

Of the teachers with Baccalaureate degrees in the 1975-76 school year, 6.62% of the Anglo teachers, 9.45% of black teachers, and 16.35% of Mexican-American teachers returned with Master's degrees in the 1976-77 school year. In the 1973-74, 1975-76 school years proportionately more Mexican-American teachers returned to work with advanced degrees (Master's) than Anglo or black teachers.

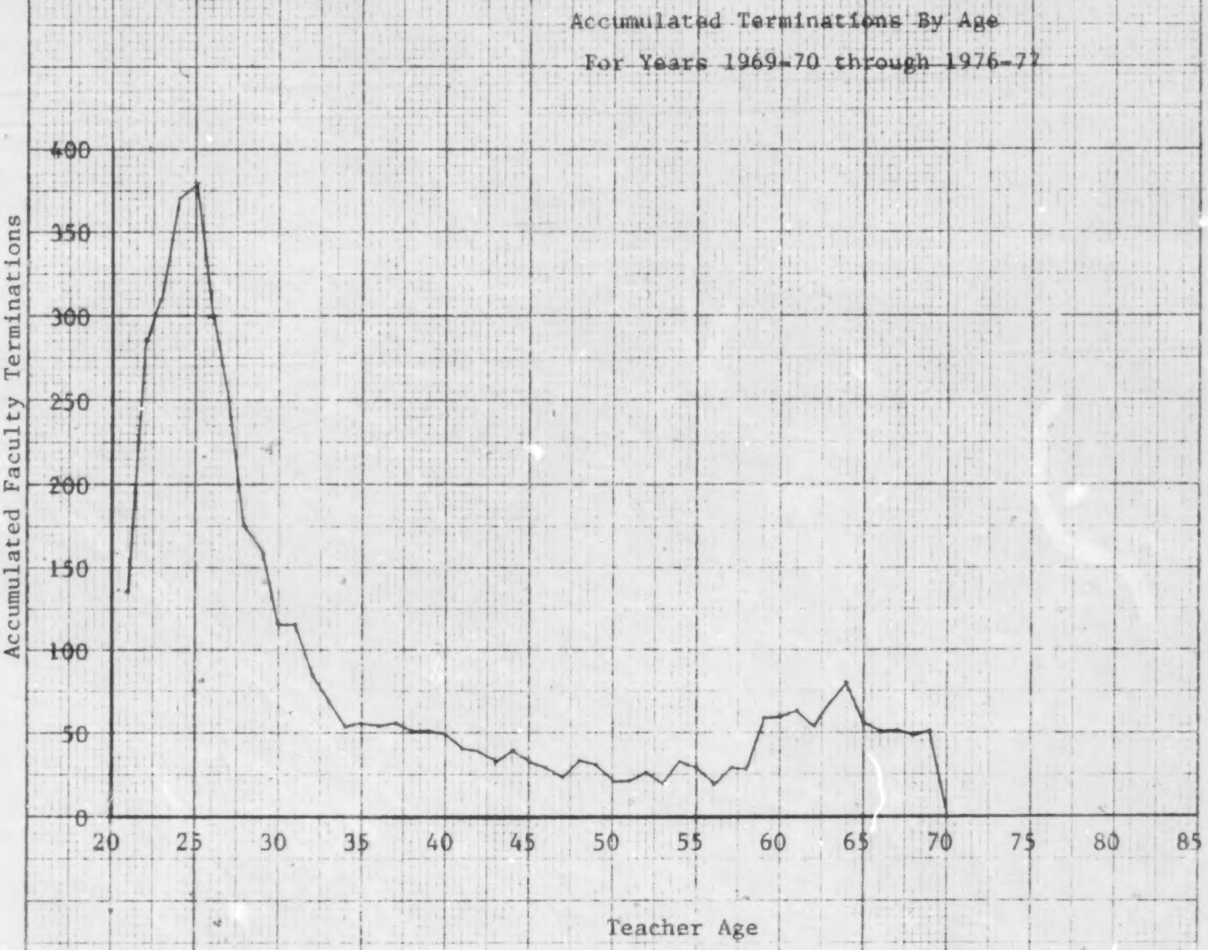
Accumulated Terminations By Age
For Years 1969-70 through 1976-77

Figure 2

K+E 20 X 20 TO THE INCH 46 1240
KEUFFEL & ESSER CO.

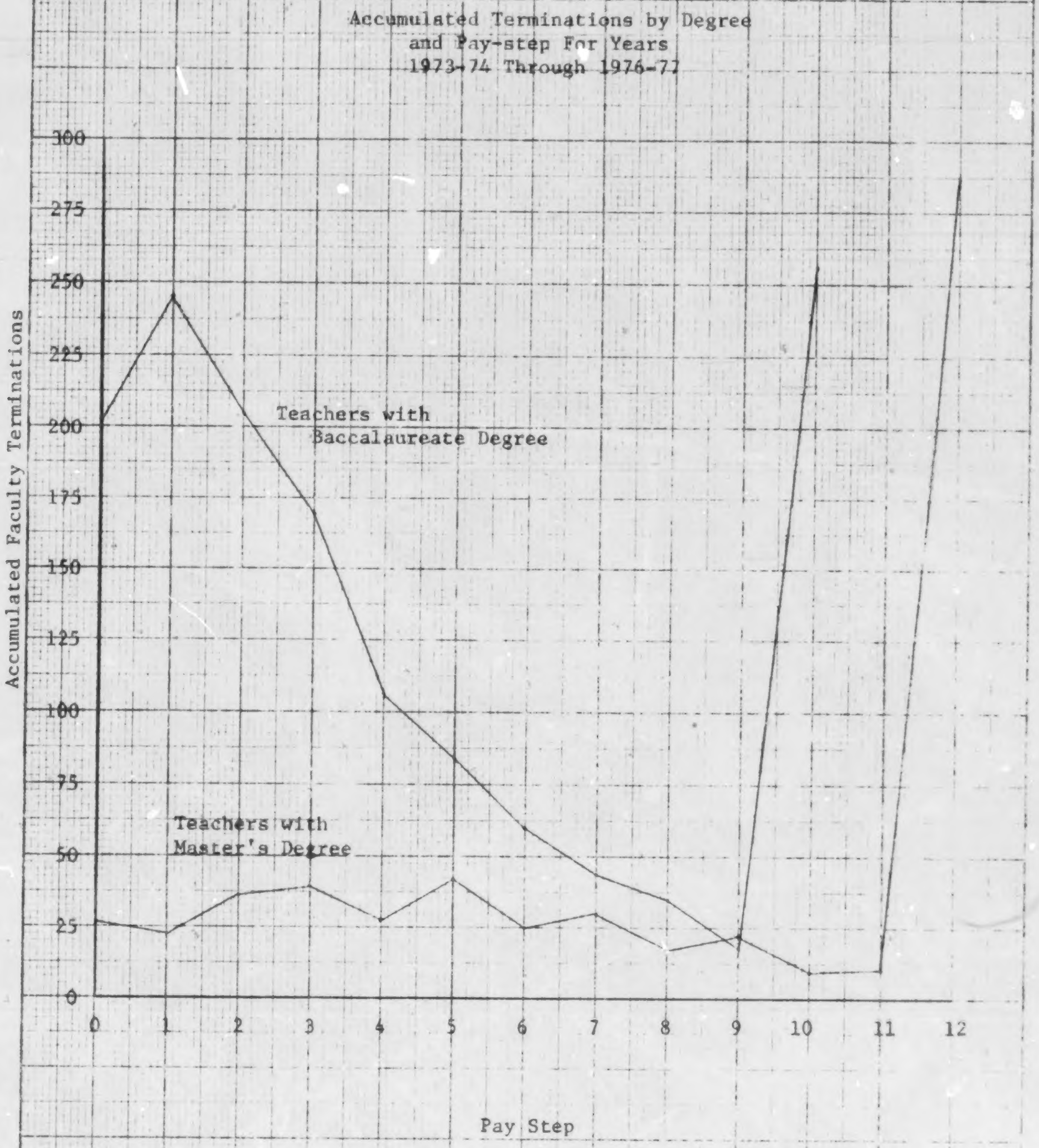

Figure 3

K+E 20 X 20 TO THE INCH 46 1240

High School Faculty Terminations

0.00%-5.00%	5.01%-10.00%	10.01%-15.00%	15.01%-20.00%	20.01%-25.00%	25.01% and over
Adams	Adamson	Jefferson			
	Carter	N. Dallas			
	Hillcrest	Roosevelt			
	Kimball	Samuell			
	Lincoln				
	Metro-East				
	Pinkston				
	Seagoville				
	Skyline				
	S. Oak Cliff				
	Spruce				
	Sunset				
	White				
	Wilson				

Middle School Faculty Terminations

0.00%-5.00%	5.01%-10.00%	10.01%-15.00%	15.01%-20.00%	20.01%-25.00%	25.01% and over
Hulcy	Atwell	Browne			
	Comstock	Cary			
	Florence	Holmes			
	Gaston	Long			
	Greiner	Rusk			
	Hill	Spence			
	Hood	Stockard			
	Marsh	Storey			
	Sequoyah				
	Walker				

Elementary School Faculty Terminations

0.00%-5.00%

- Burnett
- Caillet
- Field
- Gooch
- Hexter
- Jones
- M. Jackson
- Reilly
- Turner
- Williams
- Winnetka

5.01%-10.00%

- Arcadia Pk.
- Bayles
- Blair
- Bowie
- Bryan
- Budd
- Cabell
- Carpenter
- Casa View
- Cochran
- Conner
- DeGolyer
- Donald
- Douglass
- Earhart
- Foster
- Gill
- Hall
- Harris
- Hawthorne
- Hogg
- Hooe
- Kiest
- Kleberg
- Lagow
- Lakewood
- Lanier
- Lisbon
- Miller
- Pershing
- Polk
- Preston Hw.
- Reinhardt
- Rhodes
- Rosemont
- Rowe
- Runyon
- Sanger
- T. D. Marshall
- Thornton
- Titche
- Truett
- Tyler
- Urban Park
- Webster
- Weiss
- Wheatley
- Withers
- Wm. Anderson
- Young

10.01%-15.00%

- Alexander
- Allen
- Blanton
- Bonham
- Brown
- Buckner
- Burleson
- Bushman
- Carr
- Carrell
- City Park
- Carver
- Central
- Colonial
- Cowart
- Crockett
- Darrell
- Davis
- Dealey
- Dorsey
- Ervin
- Fannin
- Frazier
- Hassell
- Henderson
- Hotchkiss
- Ireland
- J. Adams
- Johnston
- Juarez
- Knight
- Kramer
- Lipscomb
- Macon
- Maple Lawn
- Marcus
- Marsalis
- Moseley
- N. Adams
- Navarro
- Oliver
- Peabody
- Peeler
- Reagan
- R. E. Lee
- Rogers
- Russell
- San Jacinto
- Seagoville
- Silberstein
- Terry
- Thompson
- Travis
- Twain
- V. Lee
- Walnut Hill

15.01%-20.00%

- Dunbar
- Houston
- Longfellow
- Milam
- Mills
- Mt. Auburn
- Pease
- Rice
- Seguin
- S. Jackson

20.01%-25.00%

- Harllee
- Roberts

25.01%-and over

- Arlington Pk.
- Ray

Additional Information:

LP77-087-9-5 Faculty Projections 1977-1980, 1977, Phadmakar A. Patankar.

75-617 Faculty Projection Program: General Description and Users Guide, 1975, John D. Davis III, M. William Dunklau, 81 pages.

Abstract

Financial Projection Program:
General Description and Users Guide

Analysts: William Dane Atkinson
Terry L. Bishop

The Dallas Independent School District (DISD) Financial Projection Program projects personnel by type, forecasts salaries, applies state funding formulas, and projects revenues, expenditures, and related financial data. Although the financial program is an independent computer program package, it can also be considered as one of the components in a comprehensive family of programs which include the Enrollment and Facilities Projection Program and the Faculty Projection Program. Separately or as a total set, they aim to improve educational planning and decision-making at the district level.

The purpose of the financial program is to produce a projected budget and an overall financial analysis of medium- or large-size school districts. In the process several major operations have to precede the actual running of the program:

1. Analyze enrollment, personnel, and construction.
2. Collect current and future salary schedules.
3. Collect and analyze state receipts in the area of personnel and operations which are allocated as part of the Minimum Foundation Program.
4. Collect and analyze state receipts allocated as flat grants per capita.
5. Collect federal revenue information.
6. Analyze local support through taxation for valuations, assessments, collections, and bonded indebtedness.
7. Synthesize revenue and expenditure information into a comparable format.

In order to accomplish the above, data must be gathered from the local school district and the state educational agency. In essence, the user of this program must be familiar with school finance processes and sources of school finance data. This fundamental understanding in combination with the financial program, with its flexibility, speed, analysis and reporting formats, provides the school administrator a helpful tool in exploring basic finance questions a school district must face. A limitation of the program is that its objectiveness perhaps raises more questions for the user than its pre-programmed logic can answer, since solving finance problems is a human process merely enabled by technology.

Some of the basic questions related to school finance are enumerated below:

1. What are the short- and long-range impacts of shifting student enrollment on state receipts and operating expenditures?

2. What is the finance picture which varying professional personnel salary schedules generate?

3. What local tax support can be expected for the next decade?

4. What local tax effort will be required for the next decade?

5. What controllable variables exist for District finances?

6. What strategy is indicated from a ten-year forecast of current school financing in order for quality education to be a reality?

The remainder of this brief over-view statement will introduce the potential user to the program inputs, function and algorithm, and outputs. Extensive documentation at the user and technical levels is available.

Inputs

This section previews the user's guide which accompanies the financial projection program in that it identifies the general categories of input data. All input data are eighty-column card or card-image format. The amount of input data varies according to the number of years of historical and/or projected data which can be made available to the program. There are five categories of input data: (a) operating parameters, (b) demographic information, (c) personnel history, (d) state salary schedule, and (e) miscellaneous finance information.

Operating Parameters

There are two types of input data in this category. First is District identification. Included in the grouping are school district name, address, and number; county name and number; current date, and current school years.

Second are the program directing parameters. Several options are available to the user for determining Minimum Foundation Program projection algorithms, number of years to be simulated, number of years of input data, and methods of budget category forecasting.

Demographic Information

Demographic information herein pertains to grade-level structure, student enrollment, and facilities description.

The grade-level structure provides the lower- and upper-grade limits for a three-level school plan. This is generally designated elementary, middle, and high school.

Student enrollment history and projections are inputted by program type and grade level. The program types are either regular or special. The grade levels are elementary, middle, and high. A maximum of ten years of history and ten years of projection are allowable.

Personnel History

Historical and current variables concerning professional personnel are read by personnel code. The number of personnel, actual salary, number of days worked, years' experience, and level of highest degree are personnel variables considered by the program. The personnel unit categories are as follows: classroom teacher, teacher aide, part-time principals, full-time principals, supervisor/counselors, and special service.

Salary Schedule

The state-established Minimum Foundation Program salary schedule is read. The salary schedule is for the current year and for ten future years. The schedule has multiple pay grades and pay steps. Pay grades are a function of personnel category and highest degree held; pay steps are a function of years experience.

Miscellaneous Amounts

In order to generate at one time and in common formats the most complete district financial picture possible, various historical, current, and future variables are required. These variables are standard school finance items. They include the following: (a) transportation costs, (b) state receipts, (c) local receipts, (d) tax rates, (e) percent of taxes collected, (f) real and/or personal property appraised and/or assessed value, (g) debt service information, and (h) federal receipts.

Functions

The complete process of employing the Financial Projection Program in a school district can be described as a planning subsystem. As such, there are three broad functions which make up the process. First, the input function, which serves to frame the primary elements of District finances. Second, the process function, which manipulates the input data. And third, the output function, which reports the findings of the internal programmed procedures. This section of the summary briefly describes basic internal procedures.

Project Personnel and Facilities

This functional area in the program is designed to be a general forecaster of personnel and facilities. The forecasts are by grade level. In actual operation more specific projections may be available. These projections may be produced by other programs (Enrollment and Facilities Projection, and Faculty Projection) and introduced into the financial program as input data.

Project State Funds

This is the major functional portion of the program. Its procedures simulate a Minimum Foundation Program, specifically, the Texas Minimum Foundation Program. An analysis of the personnel roster is simulated only for the present year where actual personnel and enrollment data are available. Using historical data and/or inputted change values, the program module projects future state funds in Minimum Foundation Program receipt and expenditure categories.

Determination of state funds is based on the classroom teacher unit (CTU). Other personnel categories (teacher aides, full- and part-time principals, supervisors, counselors, special service) are generated from the CTU count for a district. CTU is calculated by dividing average-daily-attendance (ADA) by a constant factor (in Texas the factor is 25).

Actual personnel data taken from official district personnel rosters are distributed (arrayed) according to personnel category codes, pay step, pay grade, years' experience and highest degree earned. The arrays contain unit counts, days worked, percentage of time assigned, and actual salaries. This current year information is analyzed, and salaries are projected for up to ten years. The projected salaries are based on an average tenure and degree percentage forecast.

Current year personnel categories are analyzed by number of units and salaries. The number of units allocated, filled, and vacant are compared to determine "excess" personnel. Neither "excess" personnel nor "vacant" positions are state funded. The funded and actual salaries are available for comparison.

The last set of procedures in the MFP simulation calculates state funds and district funds which are not salaries. The following is a list of some of the derived funds: State available funds, County available funds, local operating funds, Local Fund Assignment, regular transportation funds, special education appraisal service, special education materials, special education counseling, and special education transportation funds.

Project Revenues and Expenditures

The last major function performed by the financial program projects historical budget data. The following budget information is projected: (1) revenues, (2) expenditures, (3) valuations, (4) tax levies, (5) tax collections, (6) tax rates, (7) bonded debts, and (8) debt service requirements. Items three (3) through eight (8) are considered miscellaneous financial data. They are limited to three of the possible six projection methods and are noted in the enumeration of the methods.

Projection methods are another example of the flexible nature of the financial program. There are six available projection methods which do not have to be applied categorically to individual budget items; that is, the operating fund receipt and expenditure items are individually associated with a projection method. For instance, on the first running of the program, Method 1 might be used to project the "Media and Data Processing" item; the second run of the day might employ Method 3. The descriptions of the six methods which follow, plus the output examples, clarify the use of projection methods:

Method 1 - Historical Percentage Change. By using the number of years specified by the read-in parameter, and average percentage change is determined. This average percentage is determined. This average percentage change is applied to the previous year to obtain each given year (miscellaneous only).

Method 2 - Historical Numerical Change. Same as Method 1 except an average number change is derived. The number may be positive or negative. The average numerical change is added to the previous year to obtain each given year.

Method 3 - Programmed Change. In this case, one of two possibilities is considered more direct than the other five stated methods. First, the projection of the category may have already been calculated by a previous subprogram and a simple transfer of the value is all that is necessary. The second possibility is that a specific formula exists that can be inserted to obtain a better projection.

Method 4 - Read-in Percentage Change. Up to ten values are read in that are multiplied times the previous year to obtain the given year. Each year's percentage change may be different or all may be the same. For example, a straight ten percent increase may be read in. (Miscellaneous only.)

Method 5 - Read-in Numerical Change. Similar to read-in percentage change except that numbers to be added are read in. For example, $10,000 a year is to be added to a given category.

Method 6 - Read-in of Forecasted Values. Up to ten years of forecast may be read in. For example, a category may be held constant by reading in the present year value of $10,000 for the next ten years. (Miscellaneous only.)

Additional Information:

75-620 Food Management System-Daily Production Reports: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 55 pages.

75-619 Registration Management System: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 65 pages.

75-618 Financial Projection Program: General Description and Users Guide, 1975, William Dane Adkinson, Terry L. Bishop, 209 pages.

75-617 Faculty Projection Program: General Description and Users Guide, 1975, John D. Davis III, M. William Dunklau, 81 pages.

75-616 Enrollment and Facilities Projection Program: General Description and Users Guide, 1975, William D. Gattis, M. William Dunklau, 31 pages.

Abstract

Registration Management System:
General Description and Users Guide

Analysts: Raymond W. Cronshey
M. William Dunklau

The Dallas Independent School District (DISD) Registration Management System (RMS) was designed to decentralize and speed up the school-enrollment management process by providing enrollment management tools at the local school level. This objective is accomplished by employing remote, time-sharing computer terminals in the local schools. RMS permits each school to collect and process its own student course requests and to instantly update its student demographic data base.

RMS programs are written in Time Sharing FORTRAN IV language. The system is designed to assist the education administrators to quickly:

1. collect student course enrollment request data.
2. detect and report input typing or data errors.
3. execute massive modifications to existing student enrollment requests very simply.
4. detect and report illegal course requests (e.g., boy in girls' P.E. class, 7th grader in 9th-grade class.)
5. detect and report requests with too few or too many credit hours.
6. generate on-the-spot course enrollment tallys.
7. make instantaneous corrections to the student demographic data base.

Input Requirements

RMS requires a file of students (which includes their pertinent demographic data and their course enrollment requests).

RMS also requires a file of the names of the courses into which the students can request enrollment. If these two files do not exist, they may be created in part or in whole by typing in the data via the remote teletype terminals. Similarly, any data existing in these files can be updated or corrected using these same terminals.

Teaching Machine Concept

In order to accept all degrees of terminal operator proficiency, RMS includes a built-in teaching machine which responds differently depending upon the experience of the typist (or operator). For inexperienced operators, it asks questions using complete sentences and generally types out helpful hints to the user. For an average operator, it shortens its questions and gives only a few helpful reminders. For experienced operators, it uses terse symbols and phrases to minimize conversation time. RMS permits the operators to promote or demote themselves from one experience level to another. The instructions which RMS types to the "Novice" operator are so complete that an instruction book is not necessary. As the experience level of the operator improves, RMS spends less and less time teaching the operators or conversing with them.

Operation and Control of RMS

The operator controls the activities of RMS by requesting one of 17 one-letter "options." Each option performs one major student enrollment activity. When any option task is completed, RMS asks for its next option.

Output Reports

Since RMS maintains a continual dialog with the terminal operator, most output reports are short and pertain generally to the list of courses requested by one student. A few of its longer reports are as follows:

Option T (Tally Requests in all Courses): For Option T, RMS counts the number of students who have requested each course; then it prints out the list of courses and shows for each course:

a. course number

b. abbreviated name of the course

c. period control, i.e., credit hours for the course

d. sex restrictions (if any) for the course

e. grade level for which the course is taught (e.g., 8 = 8th grade, 12 = high school senior)

f. semester code (which indicates the semesters or quarters in which the course is offered)

g. tally or number of students who have requested the course

Option L (Count all Students in Same Courses): For Option L, RMS searches and finds all students who have requested the same course or the same courses (the operator types in the list of courses when RMS asks for it). RMS will print just the total number of students common to those listed courses, or it will also print the identification of each student who requested all of those courses. It permits the operator to specify names for identification of the students by name or total for just the total number of students. Under the names operation it prints the following information for each student:

a. student identification number

b. student sex

c. grade (1 = 1st, 12 = high school senior)

Option F (Find all Errors in one Grade): For Option F, RMS asks the operator to indicate one grade. Then RMS inspects the enrollment requests for every student in that grade. It checks for:

a. boy enrolled in girls' class

b. student enrolled in course which is offered for another grade

c. too many or too few credit hours (period control)

d. Student requesting a course that is not being offered

The printed report contains only the names of those students who fail one of the above tests.

Since the teletype terminal is silent while it is looking at student records which contain no errors and prints something only when it discovers an error, the operator may wonder if the computer has broken down when it is silent. In order to alleviate the operator's fears, RMS counts each student. Every time the count reaches a number divisible by 100, it prints out the count (600, 700, 800, etc.) to let the operator know that it is still alive.

Additional Information

75-620 Food Management System - Daily Production Reports: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 55 pages.

75-619 Registration Management System: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 65 pages.

75-618 Financial Projection Program: General Description and Users Guide, 1975, William Dane Adkinson, Terry L. Bishop, 209 pages.

75-617 Faculty Projection Program: General Description and Users Guide 1975, John D. Davis III, M. William Dunklau, 81 pages.

75-616 Enrollment and Facilities Projection Program: General Description and Users Guide, 1975, William D. Gattis, M. William Dunklau, 31 pages.

75-620

Abstract

Food Management System - Daily Production Reports: General Description and Users Guide

Analysts: Raymond W. Cronshey,
M. William Dunklau

The School Food Management System (FMGT) brings to the school system food manager the same computer management tools and techniques which are so extensively used in the business management of commercial enterprises. However, it is oriented to the peculiar needs of Dallas Independent School District (DISD) cafeterias and the operating constraints under which they must function.

It is equipped to operate equally well with either a large number of individual kitchens which prepare and dispense food for only their own cafeterias, or for a plurality of Base/Satellite operations in which one Base Kitchen prepares the food and distributes it to several Satellite Cafeterias. It is equipped to operate with food vendor suppliers who deliver their own goods or with warehouses which store government-supplied commodities and then require the school district to obtain deliveries as required.

The computer programs for FMGT are written in COBOL.

Input Requirements

The basic input document is the Daily Performance and Daily Portion Sheet. One such sheet is filled out by each cafeteria manager each day. The data on these sheets are appended to the previous days' data to create the year-to-date history tape and used to create the daily production reports. Under the pilot testing in 20 school cafeterias this input document has undergone many revisions in its format design in order to make it easy to fill out, to be self-explanatory, and to be unambiguous. This document records Type A plate lunches (those with milk), plate lunches without milk, and a la carte items sold. It records adult and child milk sales (and plates) separately for government subsidy reports. It also contains information regarding the cash received, and keeps track of the meal tickets received and sold (including the subsidized, free-meal tickets) for lunch as well as breakfast. Other input documents are required but not on a daily basis. They are updating sheets for the portion cost and selling price file, the cafeteria (serving unit) file, and the supervisor (group) file. Since there are seldom any changes to these files, the number of input documents for them is very small.

Functional Description

Each daily input sheet can contain sufficient data to fill five punched cards (if breakfast and lunch are both reported). Consequently there are extensive error-detection, cross-correlation, and "reasonableness" tests to pinpoint any mistakes or omissions in the keypunching or the data. When these are detected, they are printed out on a "reject sheet" in such a manner that a clerk has only to fill in the missing blanks and re-submit it for keypunching.

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The input data are used to generate daily business management reports and detail serving portion reports. The creation of the year-to-date history tape is not yet programmed but will be the next task accomplished. From this tape the weekly, monthly, quarterly, etc. data can be extracted to create reports and analyses.

Major Reports

Two major types of reports are produced: business analysis (profit and loss) reports, and functional management (food servings) reports. Instead of the usual daily, weekly, semi-monthly, monthly, quarterly, semi-yearly, and yearly reports FMGT employs a different philosophy. It creates only two kinds of reports: daily report and multi-day reports. For multi-day reports, one simply inputs to FMGT the starting and ending dates. It then extracts all data between those dates (inclusive) and produces the reports. Thus it can create weekly, bi-weekly, monthly, quarterly, etc. reports (starting at any desired day). This feature makes FMGT very flexible. All such reports require the use of the year-to-date history tape.

Because the District contains so many (171) school cafeterias an intermediate layer of managers (called Group Managers) is required. Approximately 13 (Serving Unit) cafeteria managers report to each Group Manager.

Because there are two levels of management, there are also two levels of reports generated. The lower level of reports brings together all cafeterias which are in the same "group" (all cafeterias which report to one group manager). The upper level of reports brings together all "group" reports; these, in effect, constitute the overall school District report.

Additional Information:

75-620 Food Management System - Daily Production Reports: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 55 pages.

75-619 Registration Management System: General Description and Users Guide, 1975, Raymond W. Cronshey, M. William Dunklau, 65 pages.

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